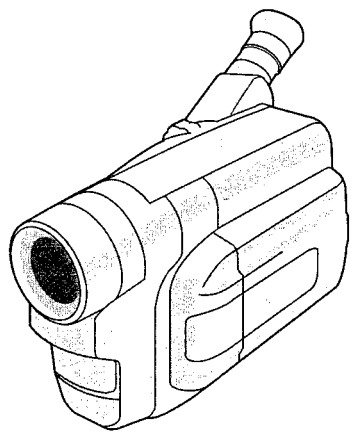
JVC

SERVICE MANUAL

COMPACT VHS CAMCORDER

GR-SXM515U/SXM915U



Super VHS

S-VHS C

Super VHS ET

SPECIFICATIONS

Camcorder

General

Format	: VHS NTSC standard
Power source	: DC 6.0 V ⎓
Power consumption	
LCD monitor off, viewfinder on	
GR-SXM915	: 6.3 W
GR-SXM515	: 6.5 W
LCD monitor on, viewfinder off	
GR-SXM915	: 6.8 W
GR-SXM515	: 7.0 W
LCD monitor on, viewfinder on	
GR-SXM915	: 7.4 W
GR-SXM515	: 7.6 W
Video light	: 2.9 W
Signal system	: NTSC-type
Video recording system	
Luminance	: FM recording
Color	: Converted sub-carrier direct recording Conforms to VHS standard
Cassette	: S-VHS C / VHS C cassette
Tape speed	
SP	: 33.35 mm/sec. (1-5/16 ips)
EP	: 11.12 mm/sec. (7/16 ips)
Recording time (max.)	
SP	: 40 minutes
EP	: 120 minutes (with TC-40)
Operating temperature	: 0°C to 40°C (32°F to 104°F)
Operating humidity	: 35% to 80%
Storage temperature	: –20°C to 50°C (–4°F to 122°F)
Weight	
GR-SXM915	: Approx. 870 g (2.0 lbs)
GR-SXM515	: Approx. 890 g (2.0 lbs)
Dimensions	: 99 (W) x 119 (H) x 198 (D) mm (3-15/16" x 4-11/16" x 7-13/16") (with the LCD monitor closed and with the viewfinder fully tilted downward)
Pickup	: 1/4" format CCD
Lens	: F1.6, f = 3.9 to 62.4 mm, 16:1 power zoom lens with auto iris and macro control, filter diameter 40.5 mm
Viewfinder	
GR-SXM915	: Electronic viewfinder with 0.55" color LCD
GR-SXM515	: Electronic viewfinder with 0.5" black/white CRT
White balance adjustment	: Auto/Manual adjustment
LCD monitor	
GR-SXM915	: 3" diagonally measured, LCD panel/TFT active matrix system
GR-SXM515	: 2.5" diagonally measured, LCD panel/TFT active matrix
Speaker	: Monaural

Connectors

S-Video	: Y : 1 Vp-p, 75 Ω, analog output C : 0.29 Vp-p, 75 Ω, analog output
JLIP	: ø3.5 mm, 4-pole, mini-head jack (compatible with RC-5325 plug)
Video (analog output via Video output connector)	: 1 Vp-p, 75 Ω unbalanced,
Audio (via Audio output connector)	: –8 dBs, 1 kΩ analog output

AC Power Adapter/Charger AA-V15U

Power requirement	
U.S.A. and Canada	: AC 120 V∿, 60 Hz
Other countries	: AC 110 V to 240 V∿, 50/60 Hz
Power consumption	: 23 W
Output	
Charge	: DC 8.5 V ⎓, 1.3 A
VTR	: DC 6.3 V ⎓, 1.8 A
Charging system	: Constant current, peak detection, timer controlled
Dimensions	: 140 (W) x 42 (H) x 68 (D) mm (5-9/16" x 1-11/16" x 2-11/16")
Weight	: Approx. 300 g (0.71 lbs)

Cassette Adapter C-P7U

Dimensions	: 188 (W) x 25 (H) x 104 (D) mm (7-7/16" x 1" x 4-1/8")
Weight	: Approx. 240 g (0.53 lbs)
Accessory	: "AA (R6)"-size battery x 1

Provided Accessories ..... ☞ pg. 6

Optional Accessories

- **Battery Packs BN-V12U, BN-V20U, BN-V856U**
- **Car Battery Charger BH-V3U**
- **Battery Charger BH-VC10U**
- **Car Battery Cord AP-V7U**
- **Compact S-VHS (S-VHS C) Cassettes ST-C-40/30/20**
- **Compact VHS (VHS C) Cassettes TC-40/30/20**
- **Active Carrying Bag CB-V7U**
- **S-Video Cable QAM0004-004**
- **Audio/Video Cable**
- **JLIP-to-PC Cable VC-VJ49WU**
- **JLIP Video Producer**
- **Brush Kit**

Some accessories are not available in some areas. Please consult your nearest JVC dealer for details on accessories and their availability.

Specifications shown are for SP mode unless otherwise indicated. E & O.E. Design and specifications subject to change without notice.

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The following table lists the differing points between Models GR-SXM515U and GR-SXM915U in this series.

	GR-SXM515U	GR-SXM915U
VIEW FINDER	B/W	COLOR
LCD MONITOR	2.5 INCH	3 INCH

Important Safety Precautions

Prior to shipment from the factory, JVC products are strictly inspected to conform with the recognized product safety and electrical codes of the countries in which they are to be sold. However, in order to maintain such compliance, it is equally important to implement the following precautions when a set is being serviced.

●Precautions during Servicing

1. Locations requiring special caution are denoted by labels and inscriptions on the cabinet, chassis and certain parts of the product. When performing service, be sure to read and comply with these and other cautionary notices appearing in the operation and service manuals.

2. Parts identified by the ⚠ symbol and shaded (▒▒) parts are critical for safety.
   Replace only with specified part numbers.
   Note: Parts in this category also include those specified to comply with X-ray emission standards for products using cathode ray tubes and those specified for compliance with various regulations regarding spurious radiation emission.

3. Fuse replacement caution notice.
   Caution for continued protection against fire hazard.
   Replace only with same type and rated fuse(s) as specified.

4. Use specified internal wiring. Note especially:
   1) Wires covered with PVC tubing
   2) Double insulated wires
   3) High voltage leads

5. Use specified insulating materials for hazardous live parts. Note especially:
   1) Insulation Tape
   2) PVC tubing
   3) Spacers
   4) Insulation sheets for transistors
   5) Barrier

6. When replacing AC primary side components (transformers, power cords, noise blocking capacitors, etc.) wrap ends of wires securely about the terminals before soldering.

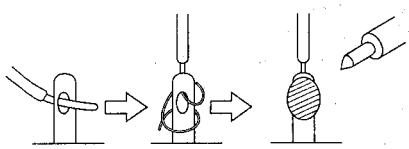


Fig.1

7. Observe that wires do not contact heat producing parts (heatsinks, oxide metal film resistors, fusible resistors, etc.)

8. Check that replaced wires do not contact sharp edged or pointed parts.

9. When a power cord has been replaced, check that 10-15 kg of force in any direction will not loosen it.

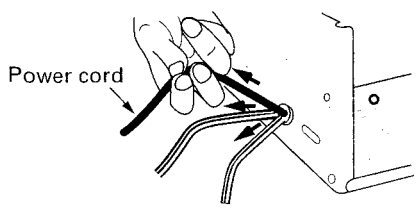


Fig.2

10. Also check areas surrounding repaired locations.

11. Products using cathode ray tubes (CRTs)
    In regard to such products, the cathode ray tubes themselves, the high voltage circuits, and related circuits are specified for compliance with recognized codes pertaining to X-ray emission. Consequently, when servicing these products, replace the cathode ray tubes and other parts with only the specified parts. Under no circumstances attempt to modify these circuits. Unauthorized modification can increase the high voltage value and cause X-ray emission from the cathode ray tube.

12. Crimp type wire connector
    In such cases as when replacing the power transformer in sets where the connections between the power cord and power transformer primary lead wires are performed using crimp type connectors, if replacing the connectors is unavoidable, in order to prevent safety hazards, perform carefully and precisely according to the following steps.

    1) **Connector part number** : E03830-001
    2) **Required tool** : Connector crimping tool of the proper type which will not damage insulated parts.
    3) **Replacement procedure**
       (1) Remove the old connector by cutting the wires at a point close to the connector.
       Important : Do not reuse a connector (discard it).

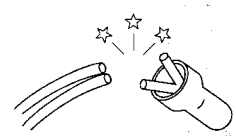


Fig.3

(2) Strip about 15 mm of the insulation from the ends of the wires. If the wires are stranded, twist the strands to avoid frayed conductors.

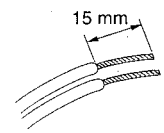


Fig.4

(3) Align the lengths of the wires to be connected. Insert the wires fully into the connector.

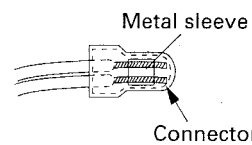


Fig.5

(4) As shown in Fig.6, use the crimping tool to crimp the metal sleeve at the center position. Be sure to crimp fully to the complete closure of the tool.

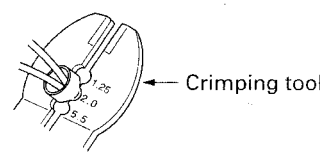


Fig.6

(5) Check the four points noted in Fig.7.

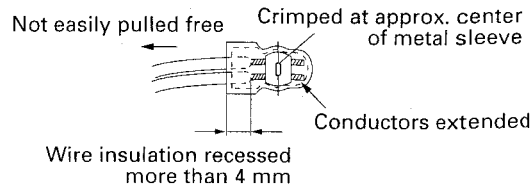

Not easily pulled free
Crimped at approx. center of metal sleeve
Conductors extended
Wire insulation recessed more than 4 mm

Fig.7

● Safety Check after Servicing

Examine the area surrounding the repaired location for damage or deterioration. Observe that screws, parts and wires have been returned to original positions, Afterwards, perform the following tests and confirm the specified values in order to verify compliance with safety standards.

1. **Insulation resistance test**
   Confirm the specified insulation resistance or greater between power cord plug prongs and externally exposed parts of the set (RF terminals, antenna terminals, video and audio input and output terminals, microphone jacks, earphone jacks, etc.). See table 1 below.

2. **Dielectric strength test**
   Confirm specified dielectric strength or greater between power cord plug prongs and exposed accessible parts of the set (RF terminals, antenna terminals, video and audio input and output terminals, microphone jacks, earphone jacks, etc.). See table 1 below.

3. **Clearance distance**
   When replacing primary circuit components, confirm specified clearance distance (d), (d') between soldered terminals, and between terminals and surrounding metallic parts. See table 1 below.

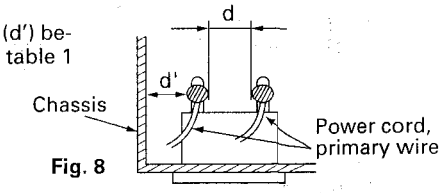


Fig. 8

4. **Leakage current test**
   Confirm specified or lower leakage current between earth ground/power cord plug prongs and externally exposed accessible parts (RF terminals, antenna terminals, video and audio input and output terminals, microphone jacks, earphone jacks, etc.).
   Measuring Method : (Power ON)
   Insert load Z between earth ground/power cord plug prongs and externally exposed accessible parts. Use an AC voltmeter to measure across both terminals of load Z. See figure 9 and following table 2.

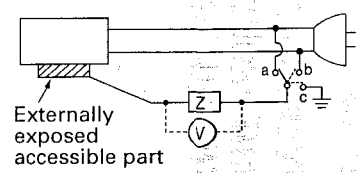


Fig. 9

5. **Grounding (Class I model only)**
   Confirm specified or lower grounding impedance between earth pin in AC inlet and externally exposed accessible parts (Video in, Video out, Audio in, Audio out or Fixing screw etc.).
   Measuring Method:
   Connect milli ohm meter between earth pin in AC inlet and exposed accessible parts. See figure 10 and grounding specifications.

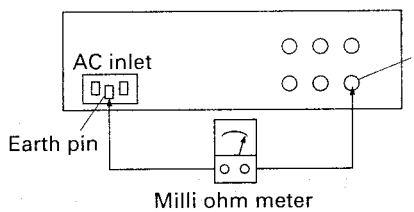


Fig. 10

Grounding Specifications

Region	Grounding Impedance (Z)
USA & Canada	Z ≦ 0.1 ohm
Europe & Australia	Z ≦ 0.5 ohm

AC Line Voltage	Region	Insulation Resistance (R)	Dielectric Strength	Clearance Distance (d), (d')
100 V	Japan	R ≧ 1 MΩ/500 V DC	AC 1 kV 1 minute	d, d' ≧ 3mm
100 to 240 V			AC 1.5 kV 1 miute	d, d' ≧ 4mm
110 to 130 V	USA & Canada	1 MΩ ≦ R ≦ 12 MΩ/500 V DC	AC 1 kV 1 minute	d, d' ≧ 32 mm
110 to 130 V 200 to 240 V	Europe & Australia	R ≧ 10 MΩ/500 V DC	AC 3 kV 1 minute (Class 2) AC 1.5 kV 1 minute (Class 1)	d ≧ 4 mm d' ≧ 8 mm (Power cord) d' ≧ 6 mm (Primary wire)

Table 1 Specifications for each region

AC Line Voltage	Region	Load Z	Leakage Current (i)	a, b, c
100 V	Japan	1 kΩ	i ≦ 1 mA rms	Exposed accessible parts
110 to 130 V	USA & Canada	0.15 μF, 1.5 kΩ	i ≦ 0.5 mA rms	Exposed accessible parts
110 to 130 V 220 to 240 V	Europe & Australia	2 kΩ	i ≦ 0.7 mA peak i ≦ 2 mA dc	Antenna earth terminals
		50 kΩ	i ≦ 0.7 mA peak i ≦ 2 mA dc	Other terminals

Table 2 Leakage current specifications for each region

Note: These tables are unofficial and for reference only. Be sure to confirm the precise values for your particular country and locality.

INSTRUCTIONS

Dear Customer,
Thank you for purchasing the JVC Compact VHS camcorder. Before use, please read the safety information and precautions contained in the following pages to ensure safe use of this product.

Using This Instruction Manual
- All major sections and subsections are listed in the Table Of Contents (☞ pg. 7).
- Notes appear after most subsections. Be sure to read these as well.
- Basic and advanced features/operation are separated for easier reference.

It is recommended that you . . .
..... refer to the Index (☞ pgs. 55 – 58) and familiarize yourself with button locations, etc. before use.
..... read thoroughly the Safety Precautions and Safety Instructions that follow. They contain extremely important information regarding the safe use of this product.

You are recommended to carefully read the cautions on pages 59 and 60 before use.

SAFETY PRECAUTIONS

CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

The AA-V15U AC Power Adapter/Charger should be used with:
AC 120 V~, 60 Hz in the USA and Canada,
AC 110 – 240 V~, 50/60 Hz in other countries.

CAUTION (applies to the AA-V15U)
TO PREVENT ELECTRIC SHOCK MATCH WIDE BLADE OF PLUG TO WIDE SLOT, FULLY INSERT.

ATTENTION (s'applique à l'AA-V15U)
POUR ÉVITER LES CHOCS ÉLECTRIQUES, INTRODUIRE LA LAME LA PLUS LARGE DE LA FICHE DANS LA BORNE CORRESPONDANTE DE LA PRISE ET POUSSER JUSQU'AU FOND.

WARNING:
TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS UNIT TO RAIN OR MOISTURE.

Warning on lithium battery
(for clock operation and remote control unit)
The battery used in this device may present a fire or chemical burn hazard if mistreated. Do not recharge, disassemble, heat above 100°C (212°F) or incinerate.
Replace the battery with Maxell, Panasonic (Matsushita Electric), Sanyo or Sony CR2025; use of another battery may present a risk of fire or explosion.
- Dispose of used battery promptly.
- Keep away from children.
- Do not disassemble and do not dispose of in fire.

NOTES:
- *The rating plate (serial number plate) and safety caution are on the bottom and/or the back of the main unit.*
- *The rating plate (serial number plate) of the AC Power Adapter/Charger is on its bottom.*

This Class B digital apparatus meets all requirements of the Canadian Interference – Causing Equipment Regulations.

"Cet appareil numérique de la classe B respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada."

This camcorder is designed to be used with NTSC-type color television signals. It cannot be used for playback with a television of a different standard. However, live recording and LCD monitor/viewfinder playback are possible anywhere. Use the BN-V11U/V12U/V20U battery packs and, to recharge them, the provided multi-voltage AC Power Adapter/Charger. (An appropriate conversion adapter may be necessary to accommodate different designs of AC outlets in different countries.)

ATTENTION:
The product that you have purchased is powered by a rechargeable battery. The battery is recyclable. At the end of its useful life, under various state and local laws, it may be illegal to dispose of this battery into the municipal waste stream. Check with your local solid waste officials for details in your area for recycling options or proper disposal.

IMPORTANT PRODUCT SAFETY INSTRUCTIONS

Electrical energy can perform many useful functions. But improper use can result in potential electrical shock or fire hazards. This product has been engineered and manufactured to assure your personal safety. In order not to defeat the built-in safeguards, observe the following basic rules for its installation, use and servicing.

ATTENTION:
Follow and obey all warnings and instructions marked on your product and its operating instructions. For your safety, please read all the safety and operating instructions before you operate this product and keep this manual for future reference.

INSTALLATION

1. Grounding or Polarization
(A) Your product may be equipped with a polarized alternating-current line plug (a plug having one blade wider than the other). This plug will fit into the power outlet only one way. This is a safety feature. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug should still fail to fit, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the polarized plug.
(B) Your product may be equipped with a 3-wire grounding-type plug, a plug having a third (grounding) pin. This plug will only fit into a grounding-type power outlet. This is a safety feature.
If you are unable to insert the plug into the outlet, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the grounding-type plug.

2. Power Sources
Operate your product only from the type of power source indicated on the marking label. If you are not sure of the type of power supply to your home, consult your product dealer or local power company. If your product is intended to operate from battery power, or other sources, refer to the operating instructions.

3. Overloading
Do not overload wall outlets, extension cords, or integral convenience receptacles as this can result in a risk of fire or electric shock.

4. Power Cord Protection
Power supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the product.

5. Ventilation
Slots and openings in the cabinet are provided for ventilation. To ensure reliable operation of the product and to protect it from overheating, these openings must not be blocked or covered.
- Do not block the openings by placing the product on a bed, sofa, rug or other similar surface.
- Do not place the product in a built-in installation such as a bookcase or rack unless proper ventilation is provided or the manufacturer's instructions have been adhered to.

6. Wall or Ceiling Mounting
The product should be mounted to a wall or ceiling only as recommended by the manufacturer.

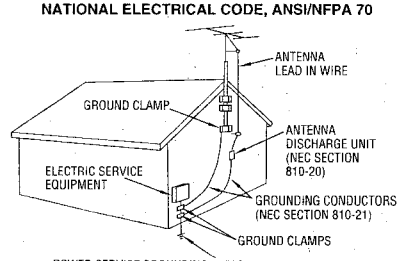
ANTENNA INSTALLATION INSTRUCTIONS

1. Outdoor Antenna Grounding
If an outside antenna or cable system is connected to the product, be sure the antenna or cable system is grounded so as to provide some protection against voltage surges and built-up static charges. Article 810 of the National Electrical Code, ANSI/NFPA 70, provides information with regard to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna discharge unit, connection to grounding electrodes, and requirements for the grounding electrode.

2. Lightning
For added protection for this product during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna or cable system. This will prevent damage to the product due to lightning and power-line surges.

3. Power Lines
An outside antenna system should not be located in the vicinity of overhead power lines or other electric light or power circuits, or where it can fall into such power lines or circuits. When installing an outside antenna system, extreme care should be taken to keep from touching such power lines or circuits as contact with them might be fatal.

EXAMPLE OF ANTENNA GROUNDING AS PER NATIONAL ELECTRICAL CODE, ANSI/NFPA 70


ANTENNA LEAD IN WIRE
GROUND CLAMP
ANTENNA DISCHARGE UNIT (NEC SECTION 810-20)
ELECTRIC SERVICE EQUIPMENT
GROUNDING CONDUCTORS (NEC SECTION 810-21)
GROUND CLAMPS
POWER SERVICE GROUNDING ELECTRODE SYSTEM (NEC ART 250, PART H)

NEC – NATIONAL ELECTRICAL CODE

USE

1. Accessories

To avoid personal injury:

- Do not place this product on an unstable cart, stand, tripod, bracket or table. It may fall, causing serious injury to a child or adult, and serious damage to the product.
- Use only with a cart, stand, tripod, bracket, or table recommended by the manufacturer or sold with the product.
- Use a mounting accessory recommended by the manufacturer and follow the manufacturer's instructions for any mounting of the product.
- Do not try to roll a cart with small casters across thresholds or deep-pile carpets.

2. Product and Cart Combination

PORTABLE CART WARNING
(Symbol provided by RETAC)

A product and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the product and cart combination to overturn.

3. Water and Moisture

Do not use this product near water—for example, near a bath tub, wash bowl, kitchen sink or laundry tub, in a wet basement, or near a swimming pool and the like.

4. Object and Liquid Entry

Never push objects of any kind into this product through openings as they may touch dangerous voltage points or short-out parts that could result in a fire or electric shock. Never spill liquid of any kind on the product.

5. Attachments

Do not use attachments not recommended by the manufacturer of this product as they may cause hazards.

6. Cleaning

Unplug this product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.

7. Heat

The product should be situated away from heat sources such as radiators, heat registers, stoves, or other products (including amplifiers) that produce heat.

SERVICING

1. Servicing

If your product is not operating correctly or exhibits a marked change in performance and you are unable to restore normal operation by following the detailed procedure in its operating instructions, do not attempt to service it yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.

2. Damage Requiring Service

Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions:

a. When the power supply cord or plug is damaged.
b. If liquid has been spilled, or objects have fallen into the product.
c. If the product has been exposed to rain or water.
d. If the product does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions as an improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to its normal operation.
e. If the product has been dropped or damaged in any way.
f. When the product exhibits a distinct change in performance—this indicates a need for service.

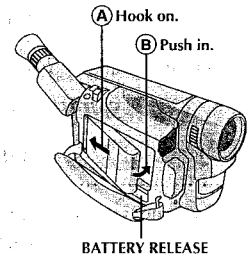
3. Replacement Parts

When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer or have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock or other hazards.

4. Safety Check

Upon completion of any service or repairs to this product, ask the service technician to perform safety checks to determine that the product is in safe operating condition.

SUPPLY POWER



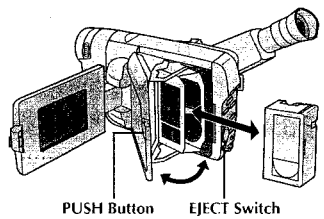
Using the battery pack

Hook its end to the camcorder (Ⓐ) and push the battery pack in until it locks in place (Ⓑ).
(Charging procedure, ☞ pg. 8)

To remove the battery pack

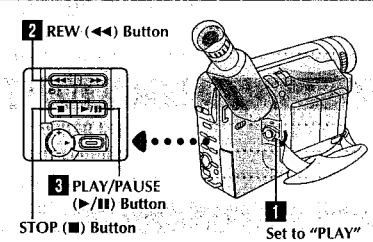
Slide **BATTERY RELEASE** and pull out the battery pack.

INSERTING A VIDEO CASSETTE



1 Open the LCD monitor to an angle of over 60 degrees.
2 Slide **EJECT** to open the cassette holder.
3 Insert a video cassette.
4 Press **PUSH** to close the cassette holder.
(For more details, ☞ pg. 13)

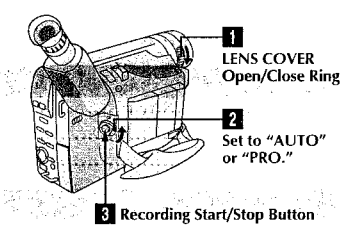
PLAYBACK



1 Set the Power Switch to "PLAY".
2 Press **REW** (◀◀).
— The tape will automatically stop at the beginning of the tape.
3 Press **PLAY/PAUSE** (▶/II).
— Playback starts and the playback picture appears.
- To stop playback, press **STOP** (■).
(For more details, ☞ pg. 42.)
- **The viewfinder switches off automatically to save power when the LCD monitor is opened at an angle of over 60 degrees.**
- **The LCD monitor turns on/off when it is opened/closed at approx. 60 degrees.**

Or simply play back the tape on a VHS VCR using the Cassette Adapter (VHS Playpak). ☞ pg. 45

SHOOTING



1 Turn the **LENS COVER** Open/Close Ring to open the lens cover.
2 Set the Power Switch to "AUTO" or "PRO.".
— The power lamp will light and an image will appear.
3 Press the Recording Start/Stop Button.
— Recording starts.
- To stop recording temporarily, momentarily press the Recording Start/Stop Button once again.
(For more details, ☞ pgs. 18 – 21)
- ***The viewfinder switches off automatically to*** **save power when the LCD monitor is opened at an angle of over 60 degrees.**
- **The LCD monitor turns on/off when it is opened/closed at approx. 60 degrees.**

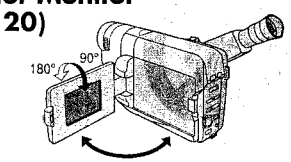
REMEMBER

The Logical Choice

Program AE with Special Effects (☞ pg. 28, 29)

- Electronic Fog Filter
- ND Effect
- Sepia
- Twilight
- Sports
- Nega/Posi
- 1/2000 sec. High Speed Shutter

LCD Color Monitor (☞ pg. 20)



Super VHS-ET (☞ pg. 14)

Snapshot (☞ pg. 26)

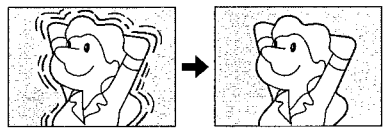
Menu Adjustment (☞ pg. 32, 33, 34)

S-VHS C VHS C HQ

Cassettes marked S-VHS C and VHS C can be used with this camcorder.

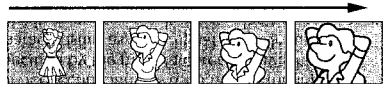
Integrated Auto Light (☞ pg. 25)

Picture Stabilizer (☞ pg. 24)



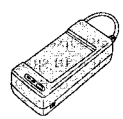
Digital Hyper Zoom (☞ pg. 22)

Zoom in

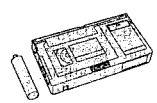


Zoom out

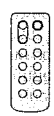
PROVIDED ACCESSORIES



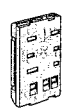
• AC Power Adapter/ Charger AA-V15U



• Cassette Adapter (VHS Playpak) C-P7U

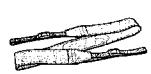


• Remote Control Unit RM-V705U



• Battery Pack BN-V20U

• Lithium Battery CR2025
• X2 (for clock operation and remote control unit)



• Shoulder Strap

• DC Cord

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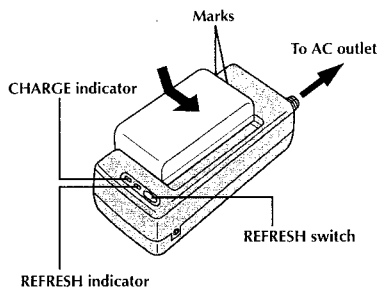


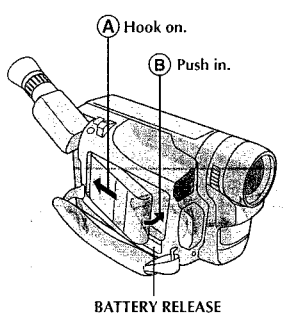
REFRESH

The AC Power Adapter/Charger features a REFRESH function that allows you to fully discharge the battery pack before recharging.

Perform the REFRESH function after no less than 5 chargings.

To discharge the battery . . .

.... attach the battery pack to the adapter as shown in the above illustration. Then push REFRESH. The REFRESH indicator lights when discharging starts, and goes out when discharging is complete.



ATTENTION:

Before detaching the power source, make sure that the camcorder's power is turned off. Failure to do so can result in a camcorder malfunction.

Power

This camcorder's 3-way power supply system lets you choose the most appropriate source of power.

NOTES:

- *No function is available without power supply.*
- *Use only the specified power supply.*
- *Do not use provided power supply units with other equipment.*

CHARGING THE BATTERY PACK

1 SUPPLY POWER

Connect the charger's AC power cord to a wall outlet.

2 ATTACH BATTERY PACK

Align the marks and slide the battery pack in the direction of the arrow until it locks in place.

- The CHARGE indicator begins blinking to indicate charging has started.

3 DETACH BATTERY PACK

When the CHARGE indicator stops blinking but stays lit, charging is finished. Slide the battery pack opposite the direction of the arrow.

Battery pack	Charging time	Discharging time
BN-V12U	approx. 1 hr. 10 min.	approx. 3 hrs. 30 min.
BN-V20U	approx. 1 hr. 50 min	approx. 6 hrs. 40 min.

USING THE BATTERY PACK

1 ATTACH BATTERY PACK

Hook its end to the camcorder (Ⓐ) and push the battery pack in until it locks in place (Ⓑ) .

2 DETACH BATTERY PACK

Slide **BATTERY RELEASE** and pull out the battery pack.

Approximate recording time (unit: min.)

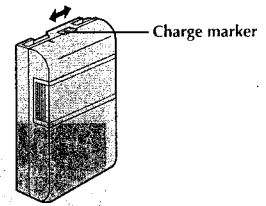
Battery pack	LCD monitor on/ Viewfinder off		LCD monitor off/ Viewfinder on		LCD monitor on/ Viewfinder on	
	①	②	①	②	①	②
BN-V12U	50 (35)	50 (35)	55 (35)	55 (35)	45 (30)	45 (30)
BN-V20U	85 (55)	85 (55)	95 (60)	90 (55)	80 (50)	75 (50)

( ) : when the video light is on.
① : when using **GR-SXM915**.
② : when using **GR-SXM515**.

INFORMATION:

VU-V856KIT is a set composed of the BN-V856U battery pack and AA-V80U AC Power Adapter/Charger. The BN-V856U battery pack provides approx. 7 hours of recording time when the viewfinder is on and the LCD monitor and the video light are off. Also read thoroughly the VU-V856KIT's instruction manuals.

It is impossible to charge the BN-V856U battery pack using the provided AC Power Adapter/Charger. Use the optional AA-V80U AC Power Adapter/Charger.

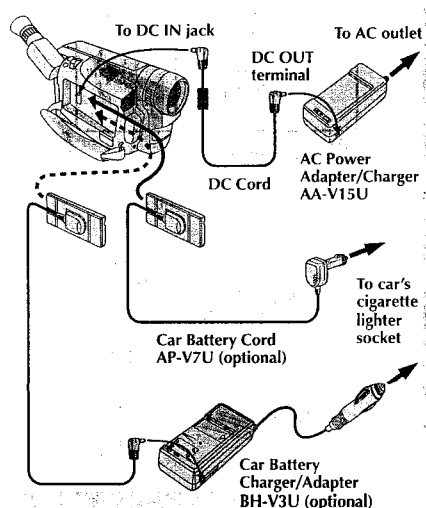


Charge Marker

A charge marker is provided on the battery pack to help you remember whether it has been charged or not. Two colors are provided (red and black)—you choose which one means charged and which means discharged.

NOTES:

- *The recording time per charge is affected by such factors as the time spent in Record-Standby mode and the frequency of zooming. It is safer to have spare battery packs to cover 3 times the planned shooting time.*
- *Charging times noted on page 8 are for a fully discharged battery pack, and discharging times are for a fully charged battery pack.*
- *Charging and discharging times vary according to the ambient temperature and the status of the battery pack.*
- *Remember to set the charge marker after charging a battery pack or after detaching a discharged one from your camcorder.*
- *Perform the REFRESH function after no less than 5 chargings.*
- *While the AC Power Adapter/Charger's power cord is disconnected from the AC outlet, it is possible to discharge the battery by pressing the REFRESH switch. During that time, the AC Power Adapter/Charger does not charge the battery. When discharging is complete, detach the battery from the AC Power Adapter/Charger to store it.*
- *High temperatures can damage the battery pack, so use only where good ventilation is available. Do not allow it to discharge in a container, such as a bag.*
- *If you stop recharging or discharging part way through, make sure to remove the battery pack before unplugging the adapter's AC cord.*
- *Remove the battery pack from the adapter immediately after discharging.*
- *To avoid interference with reception, do not use the AC Power Adapter/Charger near a radio.*
- *Make sure you unplug the DC cord before charging or discharging the battery pack.*
- *The CHARGE indicator may not light properly with a brand new battery pack, or with one that has been stored for an extended period. In this case, remove and reattach the battery pack and recharge it. The CHARGE indicator should blink during recharging. If not, contact your nearest JVC dealer.*



USING AC POWER

Use the AC Power Adapter/Charger (connect as shown in the illustration to the left).

NOTES:

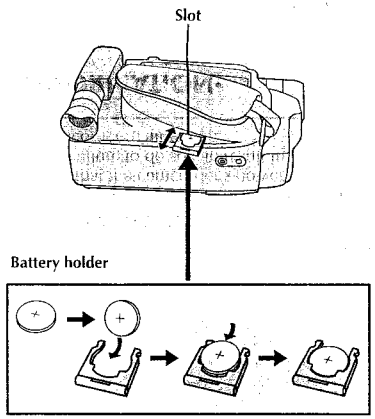
- *The provided AC Power Adapter/Charger features automatic voltage selection in the AC range from 110 V to 240 V.*
- *When using the DC cord, make sure you connect the end of the cord with the core filter to the camcorder. The core filter reduces interference.*

USING A CAR BATTERY

Use the optional Car Battery Cord or Car Battery Charger/Adapter (connect as shown in the illustration to the left).

NOTES:

- *When using the car battery, leave the engine idling.*
- *The optional Car Battery Charger (BH-V3U) can also be used to charge the battery pack (except BN-V20U/V856U).*
- *When using the optional Car Battery Charger or Car Battery Cord (AP-V7U), refer to the respective instruction booklet.*



Clock (Lithium) Battery Insertion/Removal

This battery is necessary for clock operation and to perform date/time settings.

1 SWITCH OFF POWER
Switch off the unit's power and remove the power supply unit (battery pack, AC Power Adapter/Battery Charger, etc.).

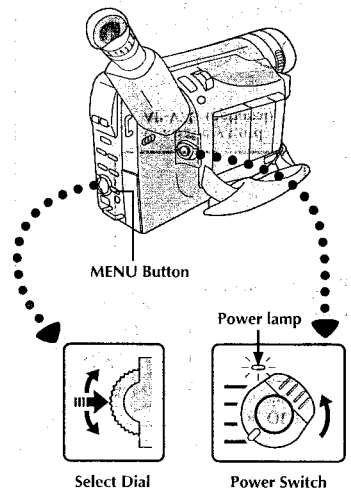
2 REMOVE BATTERY HOLDER
Pull out the battery holder.

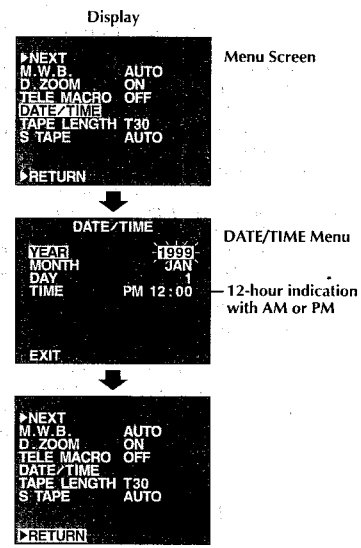
3 INSERT BATTERY IN HOLDER
Insert the battery in the holder, and be sure to have the "+" mark visible.

4 RE-INSERT HOLDER
Slide the holder back into the slot until you hear a click.

NOTE:

See "SAFETY PRECAUTIONS" (☞ pg. 2) for information on safe handling of lithium batteries.





Date/Time Settings

1 ACCESS MENU SCREEN
Set the Power Switch to "PRO.", then press **MENU**.

- The power lamp comes on.

2 SELECT FUNCTION
Rotate the Select Dial to move the highlight bar to "DATE/TIME", then press it. The DATE/TIME Menu appears.

- If you decide you want to return the date and time to the previous settings, rotate the Select Dial to move the highlight bar to "EXIT" and press it, then go to step **6**.
- If you want to set only the time without changing the date, go to step **4**.

3 SET DATE
Rotate the Select Dial to move the highlight bar to the item you want to set and then press it. When the setting begins blinking, rotate the Select Dial until the correct setting appears and then press it. The setting stops blinking.

- Repeat this procedure until you're satisfied with the Date settings ("YEAR", "MONTH" and "DAY").

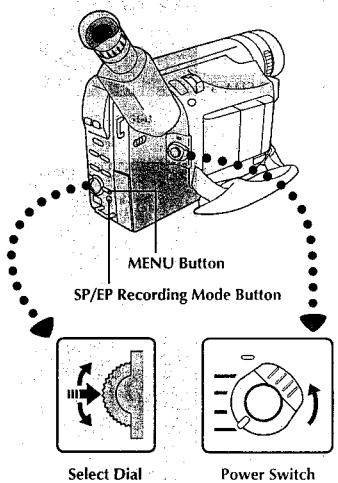
4 SET TIME
Rotate the Select Dial to move the highlight bar to "TIME" and then press it. When the hour setting begins blinking, rotate the Select Dial until the correct setting appears and then press it. When the hour setting stops blinking and the minute setting begins blinking, rotate the Select Dial until the correct setting appears and then press it. The minute setting stops blinking.

5 START CLOCK OPERATION
When none of these settings (YEAR, MONTH, DAY, TIME) blinks, rotate the Select Dial to move the highlight bar to "EXIT", and press it. The Menu Screen reappears with the highlight bar on "RETURN".

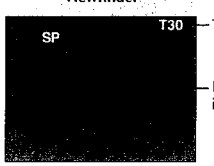
6 CLOSE MENU SCREEN
Press the Select Dial.

NOTE:

To display the date and time in the camcorder's display and on a connected TV, see "Date/Time Insert" (☞ pg. 30).



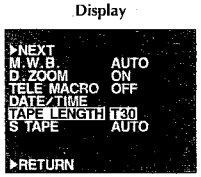
Viewfinder



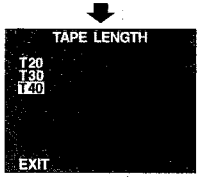
Tape length indicator

Recording mode indicator

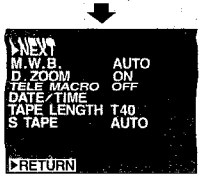
Display



Menu Screen



TAPE LENGTH Setting Menu



Recording Mode Setting

Set depending on your preference.

1 SET RECORDING MODE
First set the Power Switch to "AUTO" or "PRO.". Press **SP/EP** for more than 1 second. "SP" (Standard Play) provides higher picture and sound quality and is better for dubbing, while "EP" (Extended Play) is more economical, providing three times the recording time.

NOTE:

If the recording mode is switched during recording, the playback picture will be blurred at the switching point.

Tape Length Setting

Set the tape length according to the length of the tape used.

1 ACCESS MENU SCREEN
First set the Power Switch to "PRO.". Press **MENU**.

2 SELECT FUNCTION
Rotate the Select Dial to move the highlight bar to "TAPE LENGTH", then press it. The TAPE LENGTH Setting Menu appears.

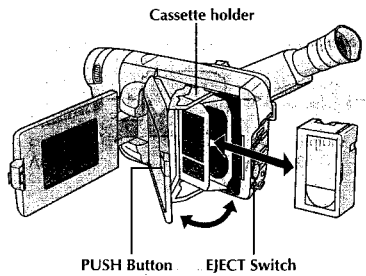
3 SET TAPE LENGTH
Rotate the Select Dial to move the highlight bar to the correct setting. T20=20 minutes of recording time, T30=30 minutes, and T40=40 minutes (in SP).

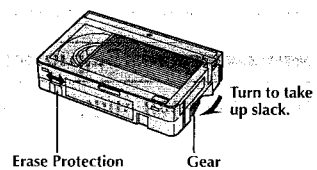
- If you decide you want to return the tape length to the previous setting, rotate the Select Dial to move the highlight bar to "EXIT".

4 CLOSE MENU SCREEN
Press the Select Dial. The Menu Screen reappears with the highlight bar on "RETURN". Press the Select Dial again to close the Menu Screen.

NOTE:

The tape remaining time (☞ pg. 19) displayed in the viewfinder is correct only if the correct tape length has been selected.





Loading/Unloading A Cassette

1 OPEN LCD MONITOR
Open the LCD monitor to an angle of over 60 degrees.

2 OPEN CASSETTE HOLDER
Slide **EJECT** until the holder opens. Do not use force to open.

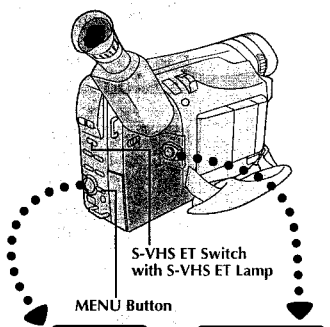
3 INSERT/REMOVE CASSETTE
Make sure the label is facing outward.

4 CLOSE CASSETTE HOLDER
Press **PUSH** and make sure the holder is closed and locked.

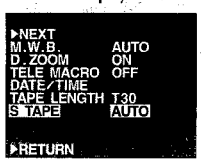
5 CLOSE LCD MONITOR
First make sure the holder is closed. Then close the LCD monitor.

NOTES:

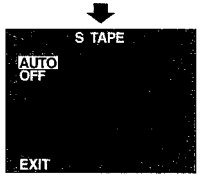
- *Closing the LCD monitor while the cassette holder is still open may cause damage to the LCD monitor.*
- *The cassette holder can't be opened unless a power supply is attached.*
- *Make sure that the tape is not slack when loading the cassette. If there is any slack, turn the gear on the cassette in the direction of the arrow to take up the slack.*
- *Make sure the Erase Protection tab is in the position that allows recording. If not, slide the tab. Some cassettes have removable tabs. If the tab has been removed, cover the hole with adhesive tape.*
- *The cassette holder cannot be opened while the camcorder is in the record mode.*



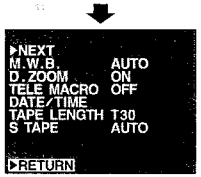
Display



Menu Screen



S TAPE Setting Menu



Menu Screen

Normal Screen

S-VHS ET indicator

S-VHS recording indicator

Super VHS ET (Expansion Technology)

This feature allows you to record with S-VHS picture quality on VHS cassettes with this camcorder.

1 ACTIVATE S-VHS ET

Set the **S-VHS ET** Switch to "ON".

• During S-VHS ET mode, "S-ET" is displayed and the S-VHS ET lamp lights.

To resume VHS recording . . .

.... Set the **S-VHS ET** Switch to "OFF". "S-ET" disappears and the S-VHS ET lamp goes off.

Recording Format Setting

Set the recording format according to the format of the tape used or type of recording you wish to perform. Menu adjustment makes it possible to record in VHS on an S-VHS cassette.

1 ACCESS MENU SCREEN

First set the Power Switch to "PRO.". Press **MENU**.

2 SELECT FUNCTION

Rotate the Select Dial to move the highlight bar to "S TAPE", then press it. The S TAPE Setting Menu appears.

3 SET RECORDING FORMAT

Rotate the Select Dial to set to either of the parameters, then press it. The highlight bar moves to "EXIT".

AUTO : Allows you to record in VHS on a VHS cassette or in S-VHS on an S-VHS cassette.

OFF : Allows you to record in VHS on an S-VHS cassette.

4 CLOSE MENU SCREEN

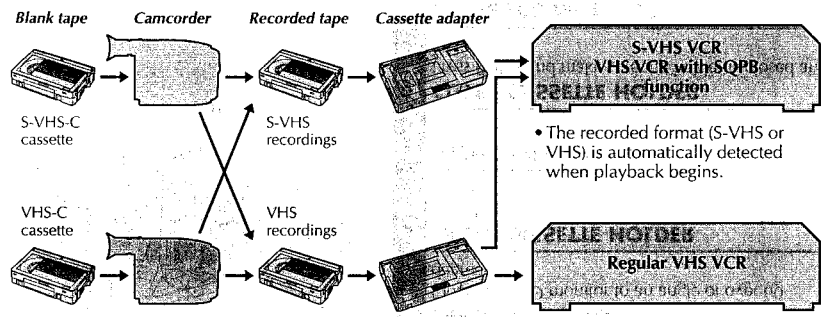
Press the Select Dial. The Menu Screen reappears with the highlight bar on "RETURN". Press the Select Dial again to close the Menu Screen.

• During S-VHS record mode, "S" is displayed.

NOTES about S-VHS and S-VHS ET

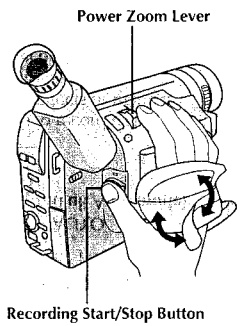
- *JVC EHG (Extra High Grade) tapes are recommended for superior results. Use S-VHS tape for storing recordings for an extended period or for recording important scenes, as it enables higher-quality recording and playback.*
- *With some tapes, better picture quality may not be obtained even with S-VHS ET recording. It is recommended that you do test record beforehand to make sure whether better results can be obtained.*
- *If the S-VHS ET mode or recording format is switched during recording, the playback picture will be blurred at the switching point.*
- *It is recommended that tapes recorded in the SP mode on this camcorder be played back on this camcorder.*
- *Noise may appear on-screen when tapes recorded in the EP mode are played back.*
- *Tapes recorded in S-VHS or S-VHS ET mode can be played back not only on this camcorder but also on a Super VHS VCR or a VCR equipped with the SQPB (S-VHS QUASI PLAYBACK) function.*
  - *— When tapes recorded in S-VHS or S-VHS ET mode are played back on a VCR equipped with the SQPB (S-VHS QUASI PLAYBACK) function, S-VHS picture quality is not available.*
  - *— Tapes recorded in S-VHS ET mode cannot be played back on some VCRs, including some JVC VCRs (eg: HR-S6600U, HR-SC1000U, etc.).*
- *Tapes recorded in S-VHS or S-VHS ET mode cannot be played back correctly on a normal VHS VCR.*
- *You can play back S-VHS ET recordings not only on this VCR but also on another VHS VCR equipped with S-VHS ET.*
  - *— It is recommended to specifically label S-VHS ET recordings so you can easily distinguish them from regular VHS recordings.*
- *S-VHS ET does not work with S-VHS tapes.*
- *To avoid on-screen noise, do not perform Still Playback or Shuttle Search repeatedly.*
- *If the picture contains a lot of jitter or noise, use a cleaning cassette.*

Compatibility Between S-VHS And VHS



• The recorded format (S-VHS or VHS) is automatically detected when playback begins.

• S-VHS recorded tapes cannot be viewed on regular VHS VCRs, other than those equipped with the SQPB (S-VHS QUASI PLAYBACK) function.

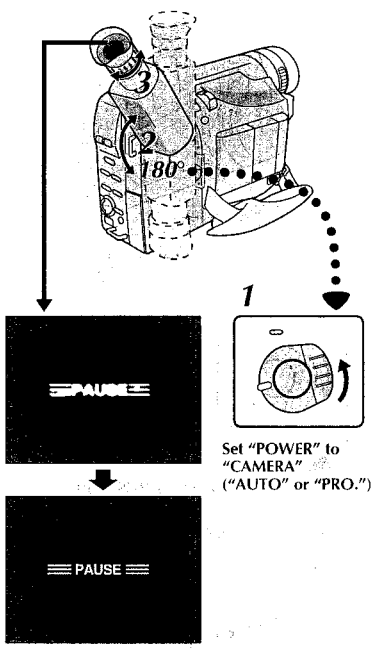


Grip Adjustment

1 EXPAND LOOP
Separate the Velcro strip.

2 INSERT HAND
Pass your right hand through the loop and grasp the grip.

3 ADJUST STRAP LENGTH
Adjust so your thumb and fingers can easily operate the Recording Start/Stop Button and Power Zoom Lever. Refasten the Velcro strip.



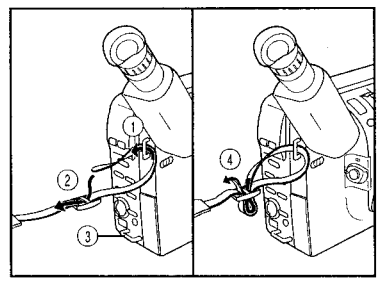
Set "POWER" to "CAMERA" ("AUTO" or "PRO.")

Viewfinder Adjustment

1 SELECT OPERATION MODE
Set the Power Switch to "CAMERA" ("AUTO" or "PRO.").

2 POSITION VIEWFINDER
Adjust the viewfinder manually for best viewability (see illustration at left).

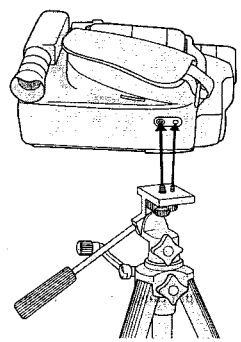
3 ADJUST DIOPTER
Turn the Diopter Adjustment Control until the indications in the viewfinder are clearly focused.



Shoulder Strap Attachment

1 ATTACH STRAP
Following the illustration at left, thread the strap through the top of the eyelet ①, then fold it back and thread it through the buckle ②. Repeat the procedure to attach the other end of the strap to the other eyelet ③, making sure the strap is not twisted.

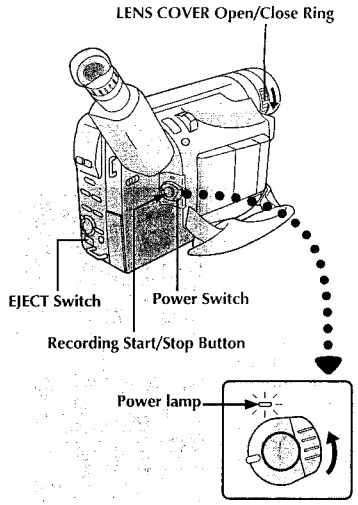
2 ADJUST LENGTH
Adjust as shown in the illustration at left ④.

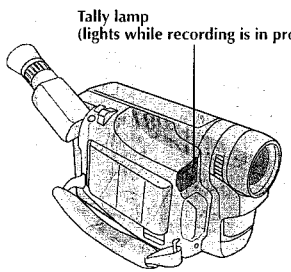


Tripod Mounting

1 ALIGN AND TIGHTEN
Align the screw and camera direction stud on the tripod with the camera's mounting socket and stud hole. Then tighten the screw.

CAUTION:
When using a tripod, be sure to open and extend its legs fully to stabilize the camcorder. To prevent damage to the unit caused by falling over, do not use a small-sized tripod.





NOTE:

You should already have performed the procedures listed below. If not, do so before continuing.

- *Power (☞ pg. 8)*
- *Recording Mode Setting (☞ pg. 12)*
- *Tape Length Setting (☞ pg. 12)*
- *Super VHS-ET function (☞ pg. 14)*
- *Recording Format Setting (☞ pg. 14)*
- *Grip Adjustment (☞ pg. 16)*
- *Viewfinder Adjustment (☞ pg. 16)*

1 LOAD A CASSETTE

First open the LCD monitor to an angle of over 60 degrees.
Slide **EJECT** to open the cassette holder, then insert the cassette with the label facing out. Press **PUSH** to ensure the holder is closed and locked.

Shooting While Watching The Viewfinder

2 ENTER RECORD-STANDBY MODE

Make sure the LCD monitor is closed and locked. Turn the **LENS COVER** Open/Close Ring to open the lens cover, then set the Power Switch to "CAMERA" ("AUTO" or "PRO.").

- The power lamp lights and the camcorder enters the Record-Standby mode.
- The scene you are aimed at appears on the viewfinder screen, with the word "PAUSE" superimposed upon it.

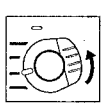
3 START SHOOTING

Press the Recording Start/Stop Button.

- "REC ▶▶▶" appears in the viewfinder while recording is in progress.

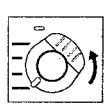
Power Switch Position

According to the Power Switch position you have selected, the following functions are available:



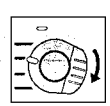
AUTO (Full Auto mode):

Allows you to record using NO special effects or manual adjustments. Suitable for standard recording.



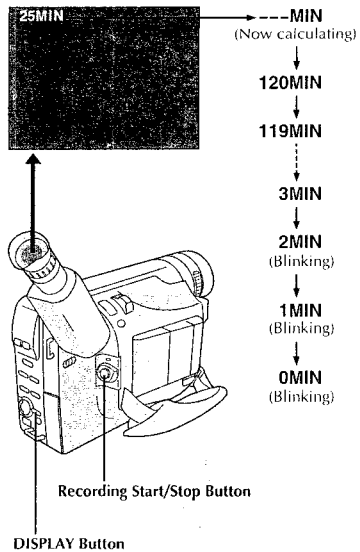
PRO. (PRO. mode):

Allows you to set various recording functions using the menus. If you want more creative capabilities than full auto recording, try this mode.



OFF:

Allows you to switch off the camcorder. After setting to this position, Manual Focus and Exposure Control are automatically reset to "AUTO".



4 STOP RECORDING

Press the Recording Start/Stop Button again to stop recording.

- The camcorder re-enters the Record-Standby mode.

NOTES:

- *When the Power Switch is set to CAMERA and the LCD monitor is opened at an angle of 60 degrees or more, the LCD monitor switches on and the viewfinder switches off automatically to save power.*
- *The cassette holder cannot be opened unless a power supply is attached.*
- *There may be a delay after you slide **EJECT** until the holder opens. Do not use force.*
- *The tape remaining time is only displayed in the viewfinder as shown.*
- *The remaining time indicated in the viewfinder is approximate.*
- *The time required to calculate the remaining tape length, and the accuracy of the calculation, may vary according to the type of tape used.*
- *The tape remaining time indicator is correct only if the correct tape length has been selected (☞ pg. 12).*
- *"TAPE END" appears when the tape reaches its end, and the power goes off automatically if left in this condition for 5 minutes. "TAPE END" also appears when a cassette whose tape is already at its end is loaded.*
- *If the Record–Standby mode continues for 5 minutes, the camcorder's power shuts off automatically. Set the Power Switch to "POWER OFF", and then back to "CAMERA" to turn the camcorder on again.*
- *If the Recording Start/Stop button is pressed after the Record-Standby mode has continued for over 5 minutes, recording may not start immediately.*
- *If you are recording on a cassette from the middle (such as when a tape is removed and re-inserted during recording), use the Retake function (☞ pg. 23) to find the end of the last recording so you don't erase any of it.*
- *The LENS COVER warning blinks for about 5 seconds when the camcorder is turned on with the cover closed.*
- *While shooting, sound is not heard from the speaker.*
- *To turn the tally lamp off during recording, refer to pgs. 32 and 34.*

LCD Monitor/Viewfinder Indications

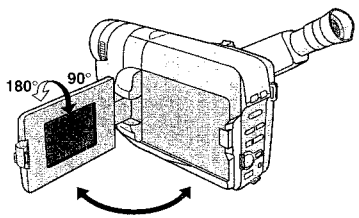
Press **DISPLAY** to make the following indications appear/disappear from the camcorder's display: cassette warning, tape remaining time, battery pack remaining power indicator and tape length indicator (☞ pg. 55).

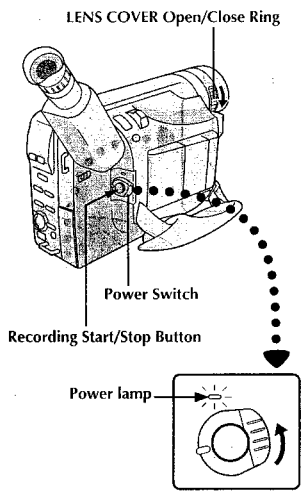
1 PRESS DISPLAY BUTTON

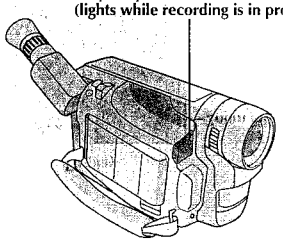
To turn off the indications, press **DISPLAY** for more than 1 second.
Press again for more than 1 second to make the indications reappear.

NOTE:

Even if the indications are off, the tape remaining time appears blinking when the tape is near its end, and the battery pack remaining power indicator appears blinking when the power is almost gone.







Shooting While Watching The LCD Monitor

Before the following steps, perform step **1** (☞ pg. 18).

2 ENTER RECORD-STANDBY MODE
Make sure the LCD monitor is fully open. Turn the **LENS COVER** Open/Close Ring to open the lens cover, then set the Power Switch to "CAMERA" ("AUTO" or "PRO.").

- The power lamp lights and the camcorder enters the Record-Standby mode.
- The scene you are aimed at appears in the LCD monitor, with the word "PAUSE" superimposed upon it.

3 START SHOOTING
Tilt the LCD monitor upward/downward for best viewability (☞ pg. 21) and press the Recording Start/Stop Button.

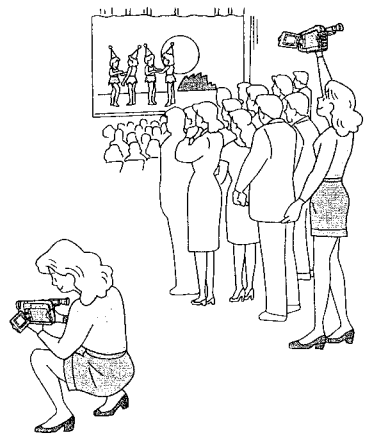
- "REC ▶▶▶" appears in the LCD monitor while recording is in progress.

4 STOP RECORDING
Press the Recording Start/Stop Button again to stop recording.

- The camcorder re-enters the Record-Standby mode.

NOTES:

- *When you use the LCD monitor outdoors in direct sunlight, the LCD monitor may be difficult to see. If this happens, we recommend that you use the viewfinder (☞ pg. 18).*
- *To turn the tally lamp off during recording, refer to pgs. 32 and 34.*
- *For other notes, refer to pg. 19.*



Journalistic Shooting

In some situations different angles of shooting may be required for more dramatic results.

1 OPEN LCD MONITOR
Make sure the LCD monitor is fully open.

2 TILT LCD MONITOR
Tilt the LCD monitor in the most convenient direction.

- The LCD monitor can rotate almost full circle (270°: 90° downward, 180° upward).

Interface Shooting

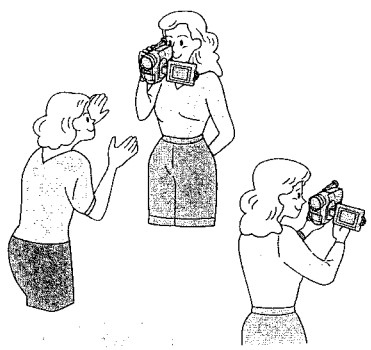
The person you shoot can view himself/herself in the LCD monitor, and you can even shoot yourself while viewing your own image in the LCD monitor.

1 TILT LCD MONITOR UPWARD
Open the LCD monitor and tilt it upward to 180 degrees so that it faces forward.

- When the LCD monitor is tilted upward to an angle of over approx. 105 degrees, the monitor image is inverted vertically, and the viewfinder also switches on.

2 START RECORDING
Point the lens toward the subject (yourself when self-recording) and start recording.

- During Interface Shooting, the monitor image and indications do not appear inverted as they would when viewing a mirror.


Self-recording

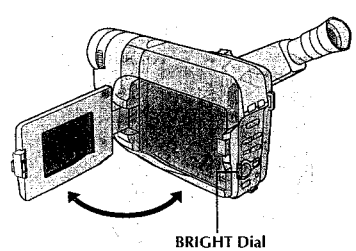
NOTE:

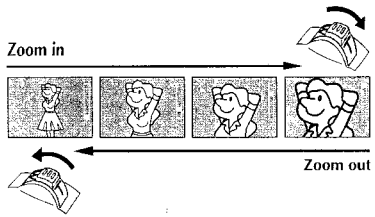
The monitored image can be viewed on the LCD monitor and in the viewfinder.

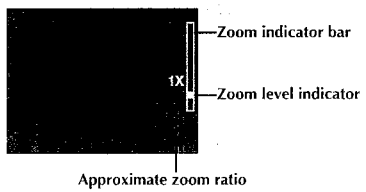
Brightness Control

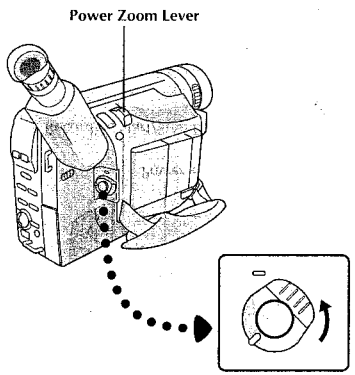
You can adjust the brightness of the LCD monitor by turning the **BRIGHT** Dial.

1 ADJUST BRIGHTNESS
If you want to brighten the image . . .
Turn the Dial towards "+".
If you want to darken the image . . .
Turn the Dial towards "–".


BRIGHT Dial







FEATURE: Zooming

PURPOSE:

To produce the zoom in/out effect, or an instantaneous change in image magnification.
Digital circuitry extends the maximum magnification offered by optical zoom. This system is called Digital Zoom.

OPERATION:

Zoom In

Push the Power Zoom Lever towards "**T**".

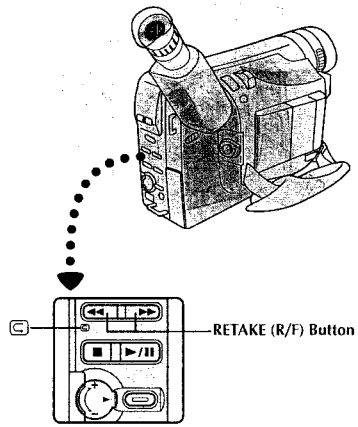
Zoom Out

Push the Power Zoom Lever towards "**W**".

- The quicker you push the Power Zoom Lever, the quicker the zoom action.

NOTES:

- *Focusing may become unstable during Zooming. In this case, set the zoom while in Record–Standby, lock the focus by using the manual focus (☞ pg. 37), then zoom in or out in Record mode.*
- *The zoom level indicator (■) moves during zoom. Once the zoom level indicator reaches the top of the zoom indicator bar, all magnification from that point is through digital processing.*
- *When using Digital Zoom, the image quality of the image may suffer. To deactivate Digital Zoom, set "D.ZOOM" to "OFF" in the Menu Screen (☞ pg. 33).*



FEATURE: Quick Review

PURPOSE:

To check the end of the last recording.

OPERATION:

1) Press "⊂" and release quickly during the Record–Standby mode.

- Tape is rewound for about 2 seconds and played back automatically, then pauses in Record–Standby mode for the next shot.

NOTE:

Distortion may occur at the start of playback. This is normal.

FEATURE: Retake

PURPOSE:

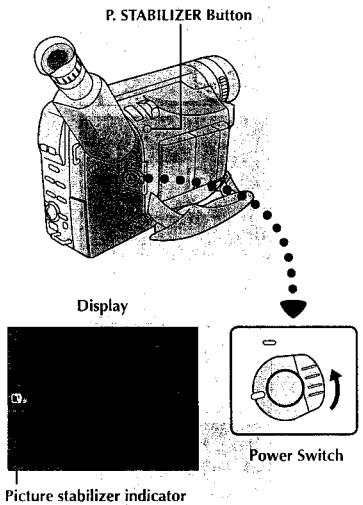
To re-record certain segments.

OPERATION:

1) Make sure the camcorder is in the Record–Standby mode.
2) Press either **RETAKE** to reach the start point for new recording. Pressing "F" forwards the tape and pressing "R" reverses it.
3) Press the Recording Start/Stop Button to start recording.

NOTE:

Noise bars appear and pictures may become monochrome or darken during Retake. This is normal.



FEATURE: Picture Stabilizer

PURPOSE:

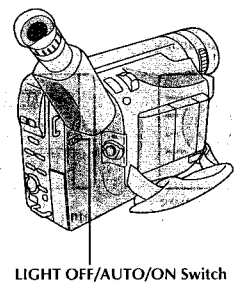
To compensate for unstable images caused by camera-shake, particularly at high magnification.

OPERATION:

1) Press **P. STABILIZER**. "" appears.
- To switch off the Picture Stabilizer, press **P. STABILIZER**. The indicator disappears.

NOTES:

- *Accurate stabilization may not be possible if hand shake is excessive, or under the following conditions:*
  - *When shooting subjects with vertical or horizontal stripes.*
  - *When shooting dark or dim subjects.*
  - *When shooting subjects with excessive backlighting.*
  - *When shooting scenes with movement in various directions.*
  - *When shooting scenes with low-contrast backgrounds.*
- *Switch off the Picture Stabilizer when recording with the camcorder on a tripod.*
- *The "" indicator appears blinking if the Stabilizer cannot be used.*



DANGER

- The video light can become extremely hot. Do not touch it either while in operation or soon after turning it off, otherwise serious injury may result.
- Do not place the camcorder into the carrying case immediately after using the video light, since it remains extremely hot for some time.
- When operating, keep a distance of about 30 cm. (1 ft.) between the video light and people or objects.
- Do not use near flammable or explosive materials.
- It is recommended that you consult your nearest JVC dealer for replacing the video light.

FEATURE: Video Light

PURPOSE:

To brighten the scene when natural lighting is too dim.

OPERATION:

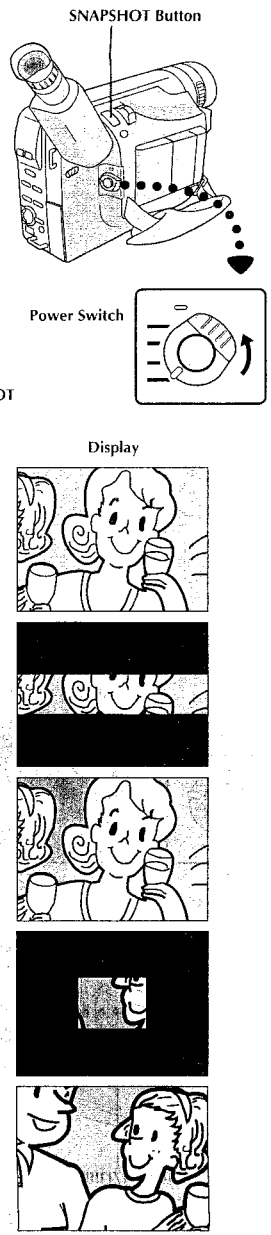
1) Set the **LIGHT OFF/AUTO/ON** Switch as required:

OFF : Turns off the light.
AUTO : Automatically turns on the light when the camcorder senses insufficient lighting on the subject.
ON : Always keeps the light on as long as the camcorder is turned on.

- The video light can only be used with the camcorder's power on.
- It is recommended to set the white balance (☞ pg. 38) to ☀ when you use the video light.
- When not using the video light, turn it off to save battery power.

NOTES:

- *Even if the battery indicator ( ) does not blink if the battery pack's charge is low, the camcorder may turn off automatically when you turn on the video light, or when you start recording with the video light turned on.*
- *When the **LIGHT OFF/AUTO/ON** Switch is set to "AUTO":*
  - *Depending on the lighting conditions, the video light may keep turning on and off. In this case, manually switch the light on or off using the **LIGHT OFF/AUTO/ON** switch.*
  - *While the "Sports" or "High Speed Shutter" mode (☞ pg. 29) is engaged, the light is likely to stay on.*
  - *While the "Twilight" mode (☞ pg. 29) is engaged, the light will not activate.*



Snapshot

Use your camcorder like a regular camera and take a snapshot, or several of them in succession.

1 SELECT OPERATION MODE
Set the Power Switch to "AUTO" or "PRO.".

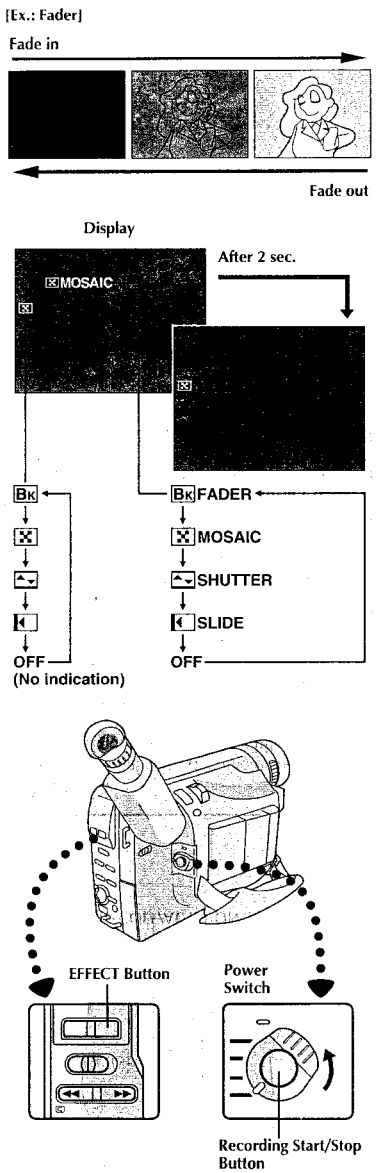
2 TAKE SNAPSHOT
Press SNAPSHOT.

If you press during Record-Standby . . .
.... a still image will be recorded for approx. 6 seconds, then the camcorder re-enters the Record-Standby mode.

If you press during Recording . . .
.... a still image will be recorded for approx. 6 seconds, then the normal recording resumes.

NOTE:

*After **SNAPSHOT** is pressed, there is a momentary camera shutter-type blackout together with the sound effect of a shutter closing, which is recorded together with the image.*



Fade/Wipe

These effects let you make pro-style scene transitions. Fade- or wipe-in works at recording start, and fade- or wipe-out works at recording end or when you enter Record–Standby mode.

1 SELECT OPERATION MODE
Set the Power Switch to "PRO.".

2 ENGAGE FADE- OR WIPE-STANDBY MODE
Press **EFFECT** to cycle through the modes as shown at left. Once the desired mode appears, it is selected and reserved.

- The selected mode's name and its indication are displayed for approx. 2 seconds. Then the name disappears, and only the indication remains.

3 START OR END RECORDING
Press the Recording Start/Stop Button to activate fade-in/out or wipe-in/out.

4 TO CANCEL FADE- OR WIPE-STANDBY MODE
Press **EFFECT** repeatedly until "OFF" appears.

- "OFF" is displayed for approx. 2 seconds and the fade/wipe standby mode is canceled.

BK FADER

Fades in/out to a black screen.

MOSAIC (Fader)

Gradually turns/returns the picture into/from a mosaic pattern.

SHUTTER (Wipe)

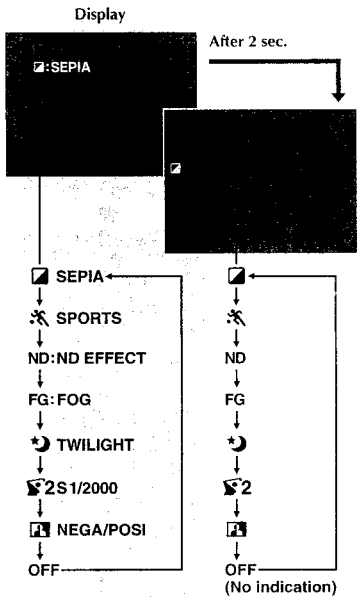
A black screen moves in from the top and bottom, closing over the image like a shutter, or a new image pushes open the black screen vertically from the center.

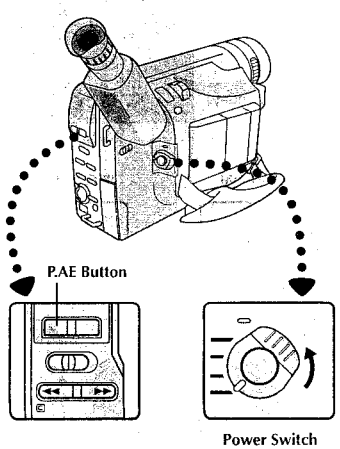
SLIDE (Wipe)

A black screen moves in from the left to gradually cover the image, or a new image moves in from right to left.

NOTES:

- *Pressing and holding the Recording Start/Stop Button allows you to vary the length for the image during fade in/out or wipe in/out.*
- *The screen becomes slightly reddish when the Fade/Wipe is used with Sepia (☞ pg. 29).*
- *With the Electronic fog filter mode (☞ pg. 29) engaged, the image fades in/out to a white screen.*





Program AE With Special Effects

All you have to do to access any of the variety of shooting effects is press **P.AE**.

1 SELECT OPERATION MODE
Set the Power Switch to "PRO.".

2 SELECT MODE
Press **P.AE** to cycle through the modes as shown on the left.

- The selected mode's name and its indication are displayed for approx. 2 seconds. Then the name disappears, and only the indication remains. The mode is activated.

NOTES:

- *Only one mode can be engaged at a time.*
- *The screen becomes slightly reddish when the Fade/Wipe (☞ pg. 27) is used in the Sepia mode.*
- *The screen becomes slightly dark in the High Speed Shutter mode. Use in well-lit situations.*
- *In the "High Speed Shutter" or "Sports" modes, picture color may be adversely affected if the subject is lit by alternating discharge-type light sources such as flourescent or mercury-vapor lights.*

Display	Mode
SEPIA	Sepia

Sepia
The scene being shot is recorded in sepia-tinted (reddish-brown) monochrome, giving the effect of an older movie. Use together with Wide (☞ pg. 33) for the authentic look of a classic Hollywood movie.

Display	Mode
SPORTS	Sports

Sports
High shutter speed clearly captures fast-moving action.

Display	Mode
ND:ND EFFECT	ND Effect

ND Effect
A black mist darkens the picture, as when an ND filter is used. Helps to counter the effects of glare on the subject.

Display	Mode
FG:FOG	Electronic Fog Filter

Electronic Fog Filter
Makes the picture look misty white, as when an external fog filter is attached to the lens. Softens the image and gives it a "fantasy" look.

Display	Mode
TWILIGHT	Twilight

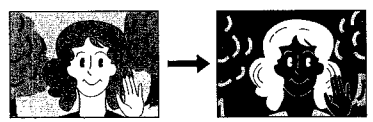
Twilight
Dusk, twilight scenery, fireworks, etc., look more natural and dramatic. The following happens when Twilight mode is selected:
- Auto gain control is turned off.
- White Balance is set to " ☀ " (FINE day mode), but can also be manually changed to another mode (☞ pg. 38).
- Auto Focus becomes available only in the range of 10 m (33 ft.) to infinity. To focus when the subject-to-camera distance is less than 10 m (33 ft.), use manual focusing (☞ pg. 37).

Display	Mode
2 S1/2000	1/2000 sec. High Speed Shutter

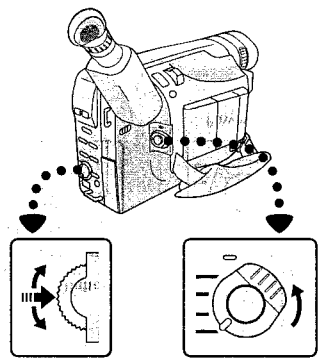
High-Speed Shutter (1/2000s.)
Captures faster action than Sports mode.

Display	Mode
NEGA POSI	Nega/Posi

Nega/Posi (Negative/Positive)
The colors of a picture are reversed.

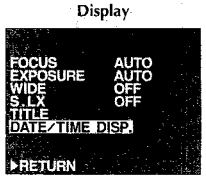


NEGA POSI mode

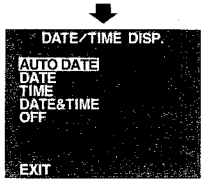


Select Dial Power Switch

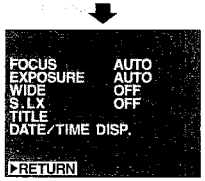
Display



Menu Screen



DATE/TIME DISP. Menu



AUTO DATE ←
↓
DEC 25.99
↓ (DATE)
AM 10:25:00
↓ (TIME)
DEC 25.99 AM 10:25:00
↓ (DATE&TIME)
OFF
(No indication)

Date/Time Insert

The feature allows you to display the date and time on the LCD monitor, in the viewfinder, or on a connected color monitor, as well as to record them manually or automatically.

1 SELECT OPERATION MODE
Set the Power Switch to "PRO.".

2 ACCESS MENU SCREEN
Press the Select Dial to display the Menu Screen.

3 ACCESS "DATE/TIME DISP." MENU
Move the highlight bar to "DATE/TIME DISP." by rotating the Select Dial while in Record-Standby. Then press it to display the DATE/TIME DISP. Menu.

4 SELECT THE DESIRED MODE
Move the highlight bar to the desired mode by rotating the Select Dial, then press it. The desired mode is activated.

- You should have already performed the Date/Time Setting procedure (☞ pg. 11). If you haven't, do so first.

5 CLOSE MENU SCREEN
The Menu Screen reappears with the highlight bar on "RETURN". Then press the Select Dial to close the Menu Screen.

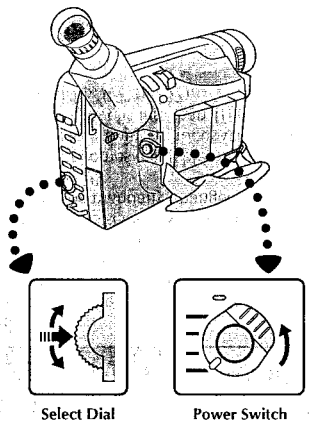
NOTES:

DISPLAY

- *The selected display can be recorded.*
- *If you do not want to record the display, select the OFF mode before shooting.*

AUTO DATE

- *Your camcorder automatically records the date for about 5 seconds after recording is initiated in the following situations:*
  - *After changing the date.*
  - *After loading a cassette.*
  - *After Auto Date Record mode is selected by rotating the Select Dial.*
- *In this mode, the date is replaced after 5 seconds with "AUTO DATE" but this is not recorded.*

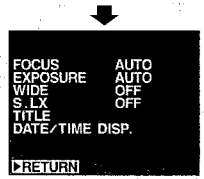


Select Dial Power Switch

Display

Menu Screen

TITLE Menu



Instant Titles

The camcorder has eight preset titles in memory. You can superimpose one of them above a previously stored title as shown in the illustration to the left.
Instant Titles can be displayed not only in English but also in French, Spanish and Portuguese. Change the setting in TITLE LANG. in the Menu Screen. (☞ pg. 32, 34).

1 SELECT OPERATION MODE
Set the Power Switch to "PRO.".

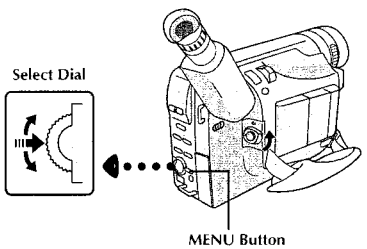
2 ACCESS MENU SCREEN
Press the Select Dial to display the Menu Screen.

3 ACCESS "TITLE" MENU
Move the highlight bar to "TITLE" by rotating the Select Dial while in Record-Standby. Then press it to display the TITLE Menu.

4 SELECT THE DESIRED MODE
Move the highlight bar to the desired mode by rotating the Select Dial, then press it. The desired mode is activated.

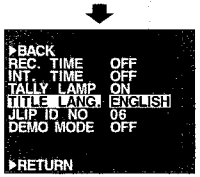
- If you wish to make the title indication disappear, select "OFF".

5 CLOSE MENU SCREEN
The Menu Screen reappears with the highlight bar on "RETURN". Then press the Select Dial to close the Menu Screen.



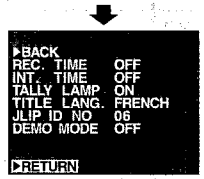
Display
(ex. Menu Screen available using the MENU Button)

Menu Screen 1



Menu Screen 2

Setting Menu
(ex. TITLE LANG.)



Normal Screen

NOTE:

No menu functions except "FOCUS" and "EXPOSURE" are available while in the Record mode.

Using Menu For Detailed Adjustment

This camcorder is equipped with an easy-to-use, on-screen menu system that simplifies many of the more detailed camcorder settings.

1 SELECT OPERATION MODE

Turn the Power Switch to "PRO.".

2 ACCESS MENU SCREEN

Menu access depends on the function you select.

If you select the functions from the "Menu Screen Available Using The Select Dial" described on pg. 33 . . .

.... press the Select Dial. The Menu Screen appears.

If you select the functions from the "Menu Screen Available Using The MENU Button" described on pg. 33 and 34 . . .

.... press **MENU**. The Menu Screen appears.

3 SELECT FUNCTION

Rotate the Select Dial to place the highlight bar on the desired function.

- To go from Menu Screen 1 to Menu Screen 2, rotate the Select Dial to "NEXT" and press it. To go back to Menu Screen 1 from Menu Screen 2, rotate the Select Dial to "BACK", and press it.
- If the setting you want cannot be found in the Menu Screen, place the highlight bar on "RETURN", then go to step **6**.

4 MAKE SETTING

Press the Select Dial. The setting procedure depends on the function you select.

If you select "FOCUS", "EXPOSURE", "TITLE", "DATE/TIME DISP." or "DATE/ TIME" . . .

.... see respective pages (FOCUS: ☞ pg. 36, 37, EXPOSURE: ☞ pg. 35, TITLE: ☞ pg. 31, DATE/TIME DISP.: ☞ pg. 30, DATE/TIME: ☞ pg. 11).

If you select "WIDE", "D.ZOOM", "TELE MACRO" or "DEMO MODE" . . .

.... the selected function's parameter starts blinking. Rotate the Select Dial until the desired parameter appears. Go to step **5**.

If you select "JLIP ID NO." . . .

.... press the Select Dial so that the number blinks, then rotate it until the desired number appears, and press it. Then rotate the Select Dial to move the highlight bar to "RETURN".

If you select any other functions . . .

.... rotate the Select Dial to move the highlight bar to the desired setting.

- If you decide you want to return to the previous setting, rotate the Select Dial to move the highlight bar to "EXIT".

5 END SETTING

Press the Select Dial. The Menu Screen reappears with the highlight bar on "RETURN".

6 CLOSE MENU SCREEN

Press the Select Dial. The normal screen reappears.

MENU SCREEN EXPLANATIONS

Menu Screen Available Using The Select Dial

FOCUS	**AUTO**	Adjusts focus automatically.
	MANU	Allows you to adjust focus manually (☞ pg. 36, 37).
EXPOSURE	**AUTO**	Adjusts exposure automatically.
	MANU	Allows you to adjust exposure manually (☞ pg. 35).
WIDE	**OFF**	Does not display black bars.
	ON	Allows you to record black bars at the top and bottom of the screen to produce a cinema-like "wide-screen" effect. If a snapshot (☞ pg. 26) is taken while the camcorder is in the WIDE mode, the snapshot image is recorded using NORMAL mode without the black bars at the top and bottom of the screen.
S.LX	**MAX**	To record a subject in a darkly lit environment, when it is more convenient to shoot the subject with a brighter image even if the picture becomes slightly coarse.
	NORMAL	To record a subject in a dimly lit environment, when it is more convenient to shoot with a less coarse picture although the subject becomes slightly dark. This setting is suitable for measuring sensitivity conforming to EIA-639 (EIA* Standard for Low Light Sensitivity Measurement). *EIA : Electronic Industries Alliance
	OFF	Allows you to shoot dark scenes with no picture brightness adjustment.
TITLE	Allows you to superimpose one of eight preset titles (☞ pg. 31).	
DATE/TIME DISP.	Makes the date/time settings appear in the camcorder or on a connected monitor (☞ pg. 30).	

Menu Screen Available Using The MENU Button

This Menu Screen cannot be accessed while recording.

M.W.B.	**AUTO**	This camcorder's Automatic Color Temperature system senses the color temperature of the ambient lighting for automatic white balance adjustment. However, precise color adjustment is not possible under the following conditions: • When an object is in various shades of the same color. • When a predominantly red or brown object is being shot outdoors. In these cases, use the camcorder's built-in preset filters for white balance adjustment (☞ pg. 38, 39).
	☀ : FINE	
	☁ : CLOUD	
	☀ : HALOGEN	
	MWB	
D. ZOOM	**ON**	Allows you to use the Digital Zoom. By digitally processing and magnifying images, zooming is possible from 16 times (the optical zoom limit), to a maximum of 320 times digital magnification.
	OFF	Digital Zoom is not available. Only optical zoom (maximum 16x magnification) can function. When set to "OFF" during Digital Zoom, zoom magnification changes to 16x.
TELE MACRO	**OFF**	Usually the distance to a subject where the lens is in focus depends on the zoom magnification. Unless there is a distance of more than 1m (3.3 ft.) to the subject, the lens is out of focus at the maximum telephoto setting. When set to "ON", you can shoot a subject as large as possible at a distance of approx. 60 cm (2 ft.). • Depending on the zoom position, the lens may go out of focus.
	ON	

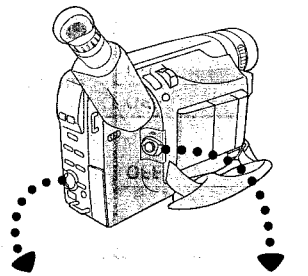
: Factory-preset

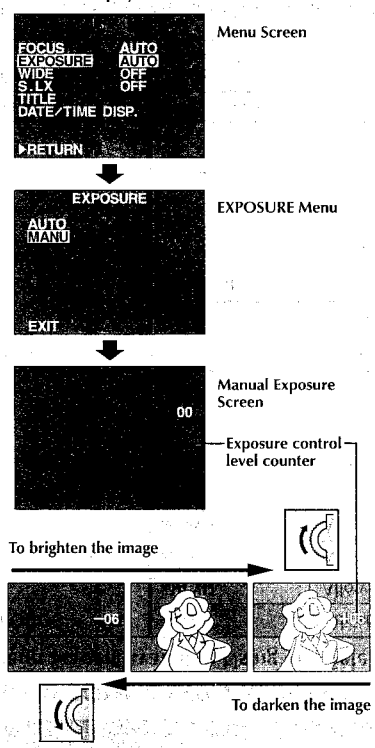
CONTINUED ON NEXT PAGE

Menu Screen Available Using The MENU Button (cont.)

DATE/TIME	Allows you to set the current date and time (☞ pg. 13).	
TAPE LENGTH	Allows you to set the tape length depending on the tape used (☞ pg. 14).	
S TAPE	OFF	When set to "OFF", allows you to record in VHS on an S-VHS cassette.
	AUTO	
REC TIME	This feature allows you to set the parameters for Animation and Time-Lapse recording (☞ pg. 41).	
INT. TIME	This feature allows you to set the parameters for Self-Timer (☞ pg. 40) and Time-Lapse recording (☞ pg. 40, 41).	
TALLY LAMP	OFF	The tally lamp remains off at all times.
	ON	The tally lamp comes on to signal the start of recording.
TITLE LANG.	Allows you to select the language (ENGLISH, FRENCH, SPANISH or PORTUGUESE) of Instant Titles (☞ pg. 31).	
JLIP ID NO.	This number is necessary when connecting the camcorder to a device such as a computer using the J terminal (JLIP). The numbers range from 01 to 99. Factory setting is 06.	
DEMO MODE	OFF	Automatic demonstration will not take place.
	ON	Demonstrates certain functions such as Fade/Wipe, etc. When "DEMO MODE" is set to "ON" and the Menu Screen is closed, the demonstration starts. **NOTES:** • *When a tape whose Erase Protection tab is in the position that allows recording is loaded in the camcorder, demonstration is not available.* • *By turning off the camcorder or inserting a tape whose Erase Protection tab is in the position that allows recording into it, "DEMO MODE" is set to "OFF" automatically.* • *During the demonstration, all functions except zoom are disabled.*

: Factory-preset





Exposure Control

This feature automatically adjusts the iris for the best available picture quality, but you can override and make the adjustment manually.

1 SELECT OPERATION MODE
Set the Power Switch to "PRO.".

2 ACCESS MENU SCREEN
Press the Select Dial to display the Menu Screen.

3 ACCESS "EXPOSURE" MENU
Rotate the Select Dial to move the highlight bar to "EXPOSURE" and press it.

4 ACCESS MANUAL EXPOSURE
Rotate the Select Dial to move the highlight bar to "MANU", then press it. "00" (exposure control level counter) appears.

5 ADJUST EXPOSURE
To brighten the image . . .
.... rotate the Select Dial upward. The exposure control level counter increases (maximum +06).
Go to step **6**.
To darken the image . . .
.... rotate the Select Dial downward. The exposure control level counter decreases (maximum –06).
Go to step **6**.

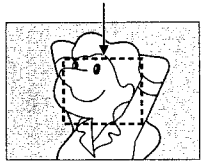
6 END ADJUSTMENT OF EXPOSURE
Press the Select Dial. The Menu Screen reappears with the highlight bar on "RETURN".

7 CLOSE MENU SCREEN
Press the Select Dial. The Menu Screen disappears and the exposure control level counter reappers to indicate the exposure is adjusted.

NOTES:

- *To return to the factory setting, select "AUTO" in step* **4**.
- *To re-adjust exposure, repeat the procedure from step* **2**.

Focus detection zone



Focusing

AUTO FOCUS

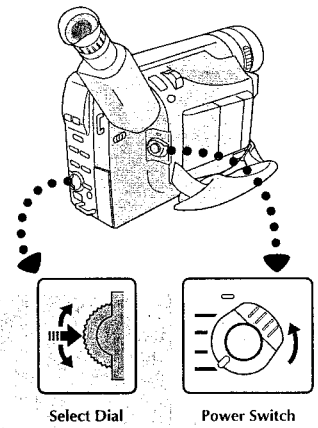
The camcorder's Full Range AF system offers continuous shooting ability from close-up to infinity. However, correct focus may not be obtainable in the situations listed below (in these cases use manual focusing):

- When two subjects overlap in the same scene.
- When illumination is low.*
- When the subject has no contrast (difference in brightness and darkness), such as a flat, one-color wall, or a clear, blue sky.*
- When a dark object is barely visible in the viewfinder.*
- When the scene contains minute patterns or identical patterns that are regularly repeated.
- When the scene is affected by sunbeams or light reflecting off the surface of a body of water.
- When shooting a scene with a high-contrast background.

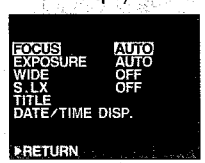
* The low-contrast warning "▲👤" appears.

NOTES:

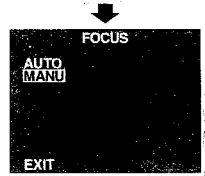
- *If the lens is smeared or blurred, accurate focusing is not possible. Keep the lens clean, wiping with a piece of soft cloth if it gets dirty. When condensation occurs, wipe with a soft cloth or wait for it to dry naturally.*
- *When shooting a subject close to the lens, zoom out first (☞ pg. 22). If zoomed in in the auto focus mode, the camcorder could automatically zoom out depending on the distance between the camcorder and the subject. When Tele Macro (☞ pg. 33) is activated, the camcorder will not zoom out automatically.*



Display

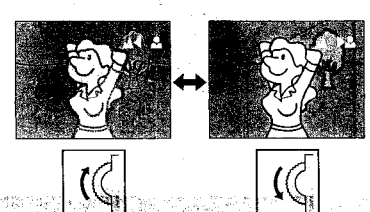


Menu Screen



FOCUS Menu

Manual Focus Screen



MANUAL FOCUS

NOTE:

You should already have made the necessary viewfinder adjustments (☞ pg. 16). If you haven't, do so before continuing.

1 SELECT OPERATION MODE
Set the Power Switch to "PRO.".

2 ACCESS MENU SCREEN
Press the Select Dial to display the Menu Screen.

3 ACCESS "FOCUS" MENU
Press the Select Dial.

4 ACCESS MANUAL FOCUS
Rotate the Select Dial to move the highlight bar to "MANU", then press it. "▲" and "👤" appear. The focus is locked at this point.

5 ADJUST FOCUS
To farther subject . . .
.... rotate the Select Dial upward. "◀" appears and blinks.
Go to step **6**.

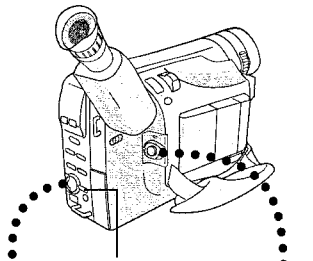
To nearer subject . . .
.... rotate the Select Dial downward. "▶" appears and blinks.
Go to step **6**.

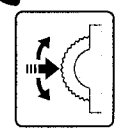
6 END ADJUSTMENT OF FOCUS
Press the Select Dial. The Menu Screen disppears and "▲👤" reappears to indicate the focus is locked.

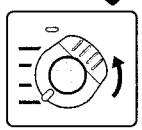
7 CLOSE MENU SCREEN
Press the Select Dial. The Menu Screen disppears and "▲👤" reappears to indicate the focus is locked.

NOTES:

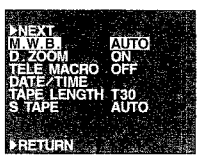
- *To return to Auto Focus, select "AUTO" in step **4**.*
- *To re-adjust Manual Focus, repeat the procedure from step **2**.*
- *Be sure to focus the lens in the maximum telephoto position when you use the Manual Focus mode. If you focus in on a certain subject in the wide-angle position, sharply focused images cannot be obtained when zoomed in because the depth-of-field is reduced at longer focal lengths.*
- *When the focus level cannot be adjusted any farther or closer, "▲" or "👤" will blink.*



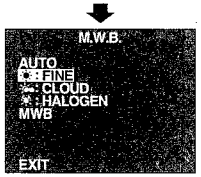

Select Dial


Power Switch

Display



Menu Screen



M.W.B. Menu

White Balance Adjustment

A term that refers to the correctness of color reproduction under various lighting. If the white balance is correct, all other colors will be accurately reproduced.
The white balance is usually adjusted automatically. However, the more advanced camcorder operator would prefer to control this function manually and achieve a more professional color/tint reproduction.

1 SELECT OPERATION MODE
Set the Power Switch to "PRO.".

2 ACCESS MENU SCREEN
Press **MENU**. The Menu Screen appears.

3 ACCESS WHITE BALANCE ADJUSTMENT
Move the highlight bar to "M.W.B." by rotating the Select Dial, then press it. The Menu Screen disappears and the "M.W.B." Menu appears.

4 SET FUNCTION PARAMETERS
Move the highlight bar to the required white balance by rotating the Select Dial, then press it. Selection is complete.

"**AUTO**"
The white balance is adjusted automatically. This is the factory preset position.

"☀ : **FINE**"
When shooting outdoors on a sunny day.

"☁ : **CLOUD**"
When shooting outdoors on a cloudy day.

"☀ : **HALOGEN**"
When using a video light or other similar type of lighting.

"**MWB**"
When shooting with the white balance already having been set on the subject (☞ pg. 39).

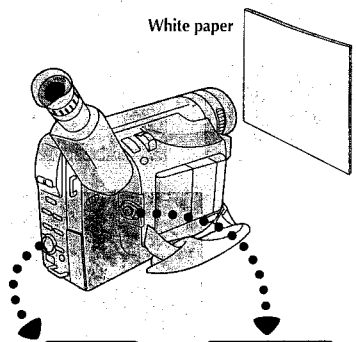
5 CLOSE MENU SCREEN
The Menu Screen reappears with the highlight bar on "RETURN". Press the Select Dial again to close the Menu Screen.

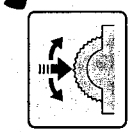
To Return To Automatic White Balance . . .
.... select "AUTO" in step **3**. Or set the Power Switch to "AUTO".

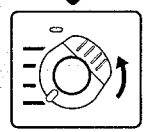
NOTE:

White balance cannot be used when Sepia (☞ pg. 29) is activated.

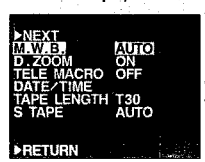
White paper



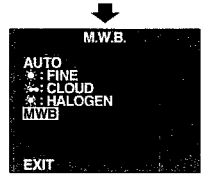

Select Dial


Power Switch

Display



Menu Screen



M.W.B. Menu

Manual White Balance Operation

If the camera is operating in PRO. mode, perform a Manual White Balance when shooting under various types of lighting.

1 SELECT OPERATION MODE
Follow steps **1** through **4** of the white balance adjustment (☞ pg. 38), and select "MWB".

2 SET MANUAL WHITE BALANCE
Hold a sheet of plain white paper in front of the subject. Adjust zoom or position yourself so that the white paper fills the screen.

3 ENTER SETTING
Press the Select Dial until "MWB" begins blinking.

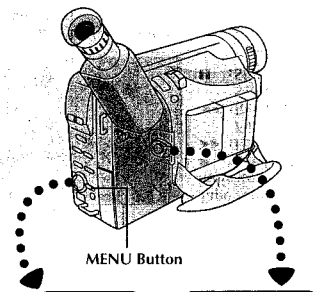
- When the setting is completed, "MWB" stops blinking, and the Menu Screen reappears with the highlight bar on "RETURN".

4 CLOSE MENU SCREEN
Press the Select Dial again to close the Menu Screen.

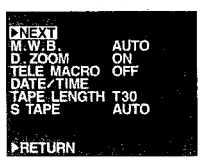
To Change The Tint For Recording . . .
.... in step **2**, substitute colored paper for white. The white balance is adjusted based on the color, changing the tint. Red paper — deeper green; blue paper — orange; yellow paper — deeper purple.

NOTES:

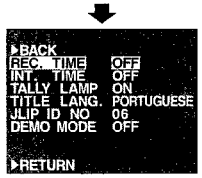
- *In step **2**, it may be difficult to focus on the white paper in some circumstances. In such a case, adjust focus manually (☞ pg. 37).*
- *A subject can be shot under various types of lighting conditions indoors (natural, flourescent, candlelight, etc.). Because the color temperature is different depending on the light source, the tint of the subject will differ depending on the white balance settings. Use this function for a more natural result.*
- *Once you adjust white balance during Manual White Balance operation, the setting is retained even if the power is turned off or the battery removed.*



Display

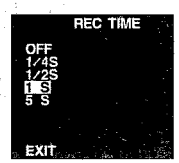


Menu Screen 1



Menu Screen 2

INT. TIME Menu



REC TIME Menu

INT. TIME and REC TIME indications on the normal screen

Self-Timer

You can set the delay between pressing the Recording Start/Stop button and the actual start of recording. If you secure the camcorder, you (or whoever is operating the camcorder) can enter the scene before recording starts.

NOTE:

Make sure the Power Switch is set to "PRO." and the camcorder is in the Record-Standby mode before performing the following steps.

1 ACCESS MENU SCREEN
Press MENU.

2 ACCESS "INT. TIME" MENU
Rotate the Select Dial to move the highlight bar to "NEXT" in Menu Screen 1 and press it to display Menu Screen 2. Then, move the highlight bar to "INT. TIME" and press it.

3 SET INTERVAL TIME
Rotate the Select Dial to move the highlight bar to the desired time, then press it. The Menu Screen reappears with the highlight bar on "RETURN".

4 CLOSE MENU SCREEN
Press the Select Dial.

5 START DELAYED RECORDING
Press the Recording Start/Stop Button. When the selected time has elapsed, recording begins automatically.

To Cancel Self-Timer . . .

.... Before the recording begins, press the Recording Start/Stop Button to display "≡PAUSE≡", then set "INT. TIME" in the Menu Screen to "OFF".

Animation

You can give stationary scenes or objects an illusion of movement. This function allows you to shoot a series of pictures, each slightly different, of the same object for a brief period of time.

NOTE:

Before performing the following steps, make sure that:

- *The Power Switch is set to "PRO.".*
- *The camcorder is in the Record-Standby mode.*
- *The recording mode is set to "SP".*

1 ACCESS MENU SCREEN
Press MENU.

2 SET RECORDING TIME
Rotate the Select Dial to move the highlight bar to "NEXT" in Menu Screen 1 and press it to display Menu Screen 2. Then, move the highlight bar to "REC TIME" and press it. The REC TIME Menu appears. Rotate the Select Dial to move the highlight bar to the desired time, then press it. The Menu Screen reappears with the highlight bar on "RETURN". Press the Select Dial again to close the Menu Screen.

3 START RECORDING
Press the Recording Start/Stop Button after focusing on the subject. The recording stops automatically after the selected period of time.

4 ASSEMBLE SERIES OF PICTURES
Repeat step **3** for the desired number of pictures.

5 RELEASE ANIMATION MODE
Set "REC TIME" in the Menu screen to "OFF".

NOTES:

- *For best results, make sure the camcorder is secured when shooting in Animation or Time-Lapse mode.*
- *Fade- or wipe-in/out cannot be performed during Animation or Time-Lapse shooting.*
- *Before performing other operations following Animation or Time-Lapse recording, make sure the Animation or Time-Lapse mode is deactivated.*
- *Self-Timer, Animation and Time-Lapse are canceled when the power is shut off or when the cassette is ejected.*

Time-Lapse

You can record sequentially at preset time spans. Leaving the camcorder aimed at a specific subject, you can record subtle changes over an extended period of time.

NOTE:

Before performing the following steps, make sure that:

- *The Power Switch is set to "PRO.".*
- *The camcorder is in the Record-Standby mode.*
- *The recording mode is set to "SP".*

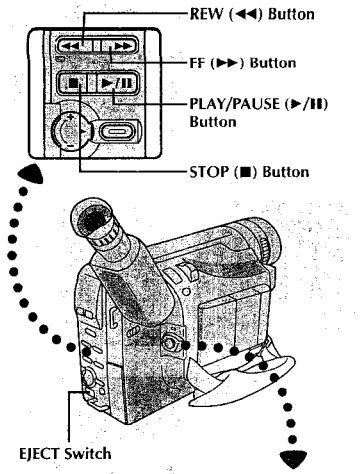
1 ACCESS MENU SCREEN
Press MENU.

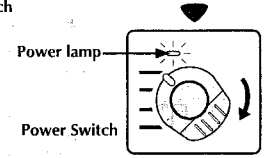
2 SET INTERVAL BETWEEN RECORDINGS
Rotate the Select Dial to move the highlight bar to "NEXT" in Menu Screen 1 and press it to display Menu Screen 2. Then, move the highlight bar to "INT. TIME" and press it. The INT. TIME Menu appears. Rotate the Select Dial to move the highlight bar to the desired time, then press it. The Menu Screen reappears.

3 SET RECORDING TIME
Rotate the Select Dial to move the highlight bar to "REC TIME", then press it. The REC TIME Menu appears. Rotate the Select Dial to move the highlight bar to the desired time, then press it. The Menu Screen reappears with the highlight bar on "RETURN". Press the Select Dial again to close the Menu Screen.

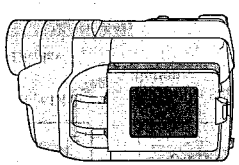
4 START TIME-LAPSE RECORDING
Press the Recording Start/Stop Button. Recording and intervals alternate automatically.

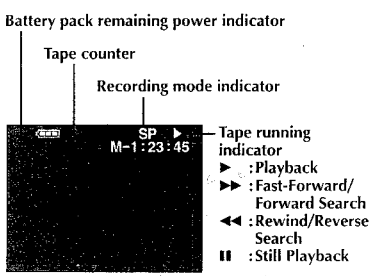
5 RELEASE TIME-LAPSE MODE
To release when "≡PAUSE≡" is displayed, set "REC TIME" and "INT. TIME" in the Menu Screen to "OFF". To release when "≡PAUSE≡" and "REC ▶▶▶" are not displayed, press the Recording Start/Stop Button to display "≡PAUSE≡", then set "REC TIME" and "INT. TIME" in the Menu Screen to "OFF".





LCD Monitor in Retracted Position





LCD monitor/viewfinder indications

1 LOAD A CASSETTE

First open the LCD monitor to an angle of over 60 degrees. Slide **EJECT** to open the cassette holder, then insert the cassette with the label facing out. Press **PUSH** to ensure the holder is closed and locked.

2 SELECT MODE

Make sure the LCD monitor is fully open, then set the Power Switch to "PLAY". The power lamp lights.

3 PLAY BACK

Press **PLAY/PAUSE (▶/II)**. The playback picture appears.

4 STOP PLAYBACK

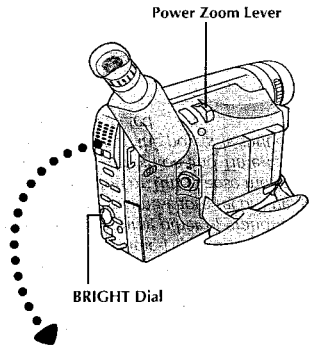
Press **STOP (■)**.

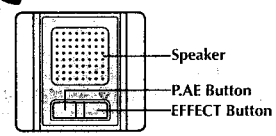
Rewind or Fast-Forward the tape

Press **REW (◀◀)** to rewind, or **FF (▶▶)** to fast-forward the tape during Stop mode.

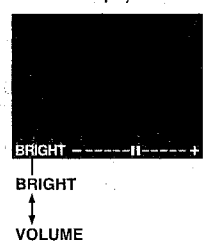
NOTES:

- *The camcorder shuts off automatically after about 5 minutes in Stop mode. To turn on again, set the Power Switch to "POWER OFF", then to "PLAY".*
- *When the Power Switch is set to "PLAY" and the LCD monitor is opened at an angle of 60 degrees or more, the LCD monitor switches on and the viewfinder switches off automatically to save power.*
- *The playback picture can also be viewed in the viewfinder (with the LCD monitor shut) or on a connected TV (☞ pg. 46, 47). Camcorder operation is the same as described in this section.*
- *You can also view the playback picture on the LCD monitor with it flipped over and retracted.*
- *During Stop, Fast-Forward or Rewind mode, none of the indications are displayed on the LCD monitor or in the viewfinder.*
- *If a blank portion on the tape is played back, the screen may become black. This is not a malfunction.*





Display



Adjust the brightness of the LCD monitor

To brighten the image, turn the **BRIGHT** Dial towards "+". To darken the image, turn the Dial towards "–".

NOTE:

The Bright Level Indicator is displayed under the Date/ Time Display when you play back images recorded in Wide Mode (☞ pg. 33).

Speaker Volume Control

You can adjust the speaker volume by pushing the Power Zoom Lever.

1 ADJUST VOLUME

If you want to turn up the volume . . .
.... push the Power Zoom Lever towards "**T**".

If you want to turn down the volume . . .
.... push the Power Zoom Lever towards "**W**".

NOTE:

The Speaker Volume Indicator is displayed under the Date/ Time Display when you play back images recorded in Wide Mode (☞ pg. 33).

Tracking

This function can be used to eliminate noise bars that appear on-screen during playback. Initial setting is Auto Tracking. Manual Tracking is also available.

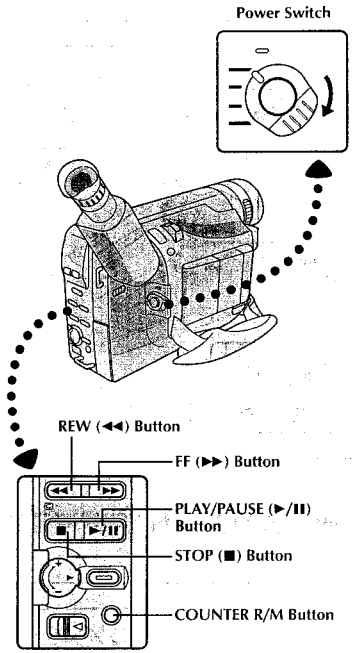
1 ACTIVATE MANUAL TRACKING

Press **P.AE** or **EFFECT** during playback. Keep pressing it until the noise bars disappear.

- To return to Auto Tracking, press **P.AE** and **EFFECT** simultaneously. "AT" blinks. When Auto Tracking finishes, the indication disappears.

NOTES:

- *When noise bars appear during playback, the camcorder enters the Auto Tracking mode and "AT" is displayed.*
- *Manual Tracking may not work with tapes recorded on other VCRs or camcorders.*



FEATURE: Still Playback

PURPOSE:
To pause during playback.

OPERATION:
1) Press **PLAY/PAUSE (▶/II)** during playback.
2) To resume normal playback, press **PLAY/PAUSE (▶/II)** again.

NOTE:
Noise bars appear and pictures may become monochrome during Still Playback. This is normal.

FEATURE: Shuttle Search

PURPOSE:
To allow high-speed search in either direction.

OPERATION:
1) Press **FF (▶▶)** to search forward or press **REW (◀◀)** to reverse during playback.
2) To resume normal playback, press **PLAY/PAUSE (▶/II)**.

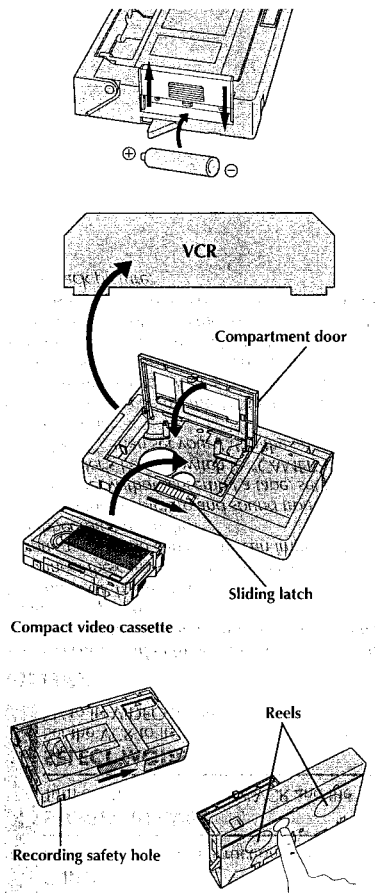
NOTES:
- *During playback, press and hold **REW (◀◀)** or **FF (▶▶)**. The search continues as long as you hold the button. Once you release it, normal playback resumes.*
- *Noise bars appear and pictures may become monochrome or darken during Shuttle Search. This is normal.*

FEATURE: Counter Memory Function

PURPOSE:
To make it easier to locate a specific tape segment.

OPERATION:
1) Press **COUNTER R/M** and hold for more than 1 second. The counter resets to "0:00:00".
2) Press **COUNTER R/M** for less than 1 second. "M" appears.
3) After recording or playback, press **STOP (■)**, then **REW (◀◀)**. The tape automatically stops at or close to 0:00:00.
4) Press **PLAY/PAUSE (▶/II)** to start playback.

NOTES:
- *The counter memory functions in the Fast-Forward and Rewind modes.*
- *To disable the Counter Memory Function, press **COUNTER R/M** for less than 1 second so that "M" disappears.*



Cassette Adapter (VHS Playpak)

Use this to play back an S-VHS-C/VHS-C video cassette recorded with this camcorder on a VHS VCR. It is fully compatible with any S-VHS/VHS video cassette recorder. The C-P7U adapter is battery powered and automatically performs tape loading and unloading.

1 INSERT BATTERY
Slide the battery cover up to remove it, and install one "AA(R6)" size battery as shown in the illustration at left, then reattach the cover.

2 INSERT CASSETTE IN ADAPTER
Slide the latch to open the adapter compartment door, then insert the cassette and close the compartment door.

3 PLAY BACK ON CONNECTED VCR
Load the cassette adapter into the VCR and play the tape back as you would any other.

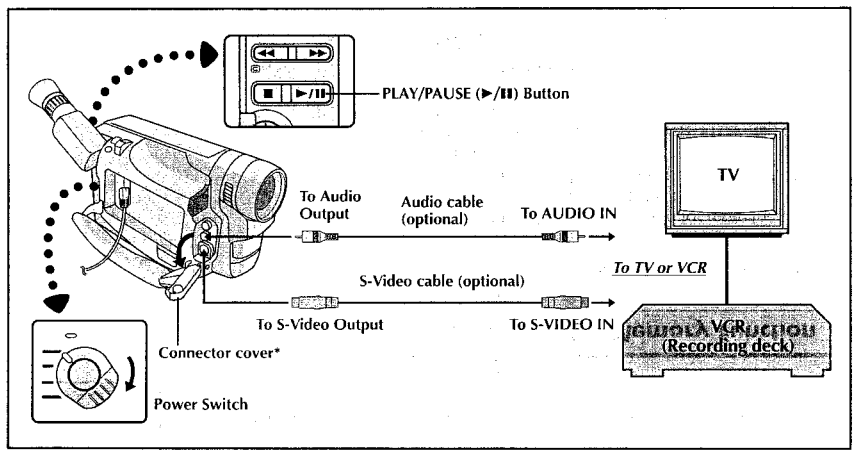
4 REMOVE CASSETTE FROM ADAPTER
Slide the latch and the compartment door opens automatically. This may take around 10 seconds. Do not attempt to force the adapter open. Then, insert your finger in the hole on the underside of the adapter as shown in the illustration at left, and push up and remove the cassette.

NOTES:
- *During tape loading and unloading, do not touch the reels for safety and tape protection.*
- *Tapes recorded in S-VHS or S-VHS ET mode cannot be played back on a regular VHS VCR. Playback is possible with a VCR equipped with the S-VHS or SQPB (S-VHS QUASI PLAYBACK) function.*
- *During special-effect playback (slow motion, still frame, etc.), the picture may vibrate or noise bars may appear on the screen.*
- *To record on a VCR using a compact cassette and the adapter, cover the adapter's recording safety hole with adhesive tape.*

These are some basic types of connections. When making connections, refer also to your VCR and TV instruction manuals.

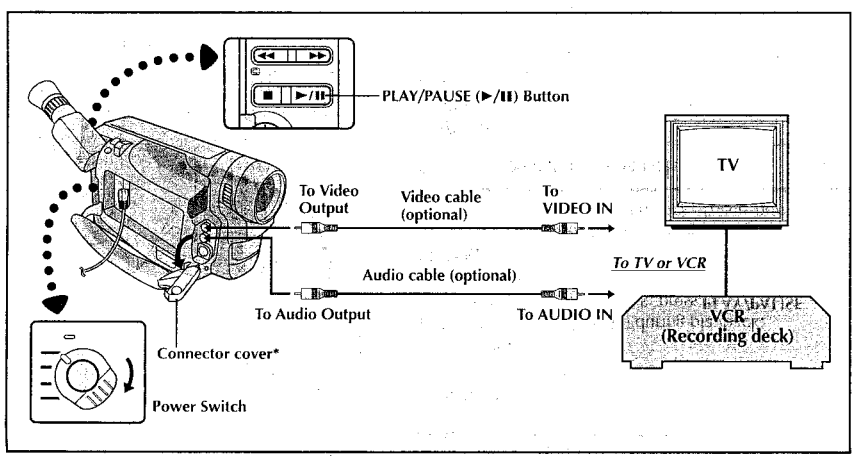
A. Connection to a TV or VCR equipped with an S-VIDEO IN and A/V input connectors

Use optional S-Video and Audio cables.



B. Connection to a TV or VCR equipped only with A/V input connectors

Use optional Video and Audio cables.



* When connecting the cables, open this cover.

Basic Connections

1 CONFIRM POWER-OFF STATUS
Make sure the camcorder's power is off.

2 CONNECT CAMCORDER TO TV OR VCR
Pull out the connector cover and open it. Connect as shown in the illustration (☞ pg. 46).

If using a VCR . . . go to step 3.
If not . . . go to step 4.

3 CONNECT VCR OUTPUT TO TV INPUT
Refer to your VCR's instruction manual.

4 SUPPLY POWER
Turn on the camcorder, the VCR and the TV.

5 SELECT MODE
Set the VCR to its AUX input mode, and set the TV to its VIDEO mode.

NOTES:

- ***It is recommended to use the AC Power Adapter/ Charger as the power supply instead of the battery pack (☞ pg. 9).***
- *If your VCR has an S-Video input connector, connect the camcorder and the VCR using an optional S-Video cable. This can improve the dubbed picture quality.*
- *To monitor the picture and sound from the camcorder without inserting a tape, set the camcorder's Power Switch to "CAMERA" ("AUTO" or "PRO."), then set your TV to the appropriate input mode.*
- *Make sure you adjust the TV sound volume to its minimum level to avoid a sudden burst of sound when the camcorder is turned on.*
- *If you have a TV or speakers that are not specially shielded, do not place the speakers adjacent to the TV as interference will occur in the camcorder playback picture.*

Tape Dubbing

1 CONNECT EQUIPMENT
Following the illustration on pg. 46, connect the camcorder and the VCR.

2 PREPARE FOR DUBBING
Set the camcorder's Power Switch to "PLAY", turn on the VCR's power, and insert the appropriate cassettes in the camcorder and the VCR.

3 SELECT VCR MODE
Engage the VCR's AUX and Record-Pause modes.

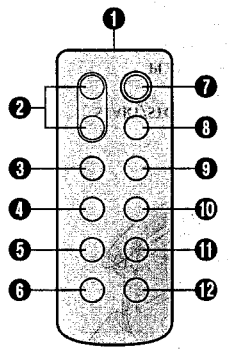
4 FIND EDIT-IN POINT
Engage the camcorder's Play mode to find a spot just before the edit-in point. Once it is reached, press **PLAY/PAUSE (▶/II)** on the camcorder.

5 START EDITING
Press **PLAY/PAUSE (▶/II)** on the camcorder and engage the VCR's Record mode.

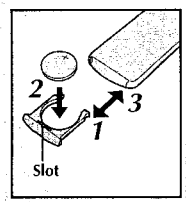
6 STOP EDITING TEMPORARILY
Engage the VCR's Record-Pause mode and press **PLAY/PAUSE (▶/II)** on the camcorder.

7 EDIT MORE SEGMENTS
Repeat steps **4** through **6** for additional editing, then stop the VCR and camcorder when finished.

The Full-Function Remote Control Unit can operate this camcorder from a distance as well as the basic operations (Playback, Stop, Pause, Fast-Forward and Rewind) of your VCR.



RM-V705U
(provided)



Installing The Battery

The remote control uses one lithium battery (CR2025).

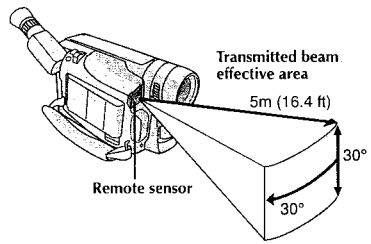
1 PULL OUT BATTERY HOLDER
Pull out the battery holder by inserting a pointed instrument into the slot.

2 INSERT BATTERY IN HOLDER
Insert the battery in the holder, and be sure to have the "+" mark visible.

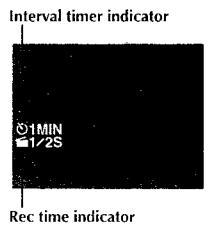
3 RE-INSERT HOLDER
Slide the holder back in until you hear a click.

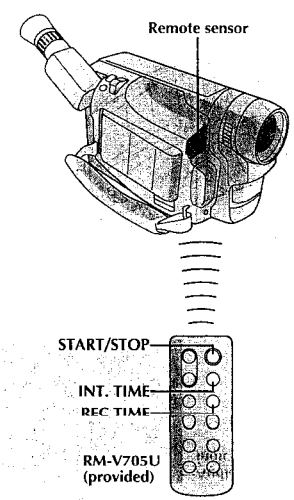
- Read the caution concerning lithium batteries (☞ pg. 2).

Buttons	Functions	
	With the camcorder's Power Switch set to "CAMERA", "AUTO" or "PRO."	With the camcorder's Power Switch set to "PLAY".
❶ Infrared beam transmitting window	Transmits the beam signal.	
❷ ZOOM (T/W) Buttons	Zoom in/out (☞ pg. 22)	—
❸ PLAY Button	—	Playback start (☞ pg. 42)
❹ STOP Button	—	Stop (☞ pg. 42)
❺ REW Button	Retake (rewind)/Quick Review (☞ pg. 23)	Rewind, Reverse Shuttle Search (☞ pg. 42, 44)
❻ INSERT Button	—	Insert Editing (☞ pg. 50)
❼ START/STOP Button	Functions the same as the Recording Start/Stop Button on the camcorder.	
❽ INT. TIME Button	Self-Timer/Time-Lapse (☞ pg. 49)	—
❾ REC TIME Button	Animation/Time-Lapse (☞ pg. 49)	—
❿ PAUSE Button	—	Pause (☞ pg. 44)
⓫ FF Button	Retake (forward) (☞ pg. 23)	Fast-Forward, Forward Shuttle Search (☞ pg. 42, 44)
⓬ A.DUB Button	—	Audio dubbing (☞ pg. 51)



When using the remote control, be sure to point it at the remote sensor. The above illustration shows the approximate transmitted beam effective area for indoor use.
The transmitted beam may not be effective or may cause incorrect operation outdoors or when the remote sensor is directly exposed to sunlight or powerful lighting.





FEATURE: Self-Timer, Animation and Time-Lapse

PURPOSE:

The remote control lets you set/release Interval Timer and Rec Time functions without using the Menu Screen.

OPERATION:

Self-Timer

1) Set
Instead of performing steps **1** through **4** on pg. 40 ("Self-Timer"), press **INT. TIME** on the remote control. Each time **INT. TIME** is pressed, the Interval Timer indicator appears, changing in the following order: 15S, 30S, 1MIN, 5MIN and No indication (off).

2) Release
Instead of setting "INT. TIME" to "OFF" in the Menu, press **INT. TIME** on the remote control until the Interval Timer indicator disappears.

Animation

1) Set
Instead of performing steps **1** and **2** on pg. 41 ("Animation"), press **REC TIME** on the remote control. Each time **REC TIME** is pressed, the Rec Time indicator appears, changing in the following order: 1/4S, 1/2S, 1S, 5S and No indication (off).

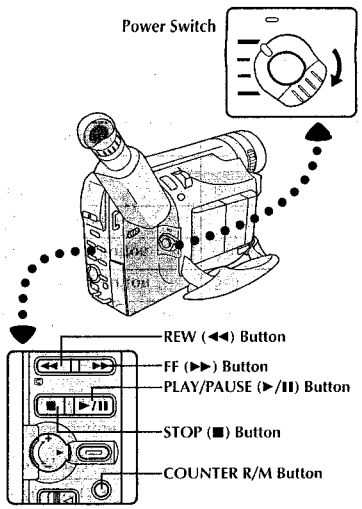
2) Release
Instead of using the Menu in step **5** on pg. 41, press **REC TIME** on the remote control until the Rec Time indicator disappears.

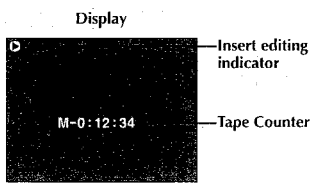
Time-Lapse

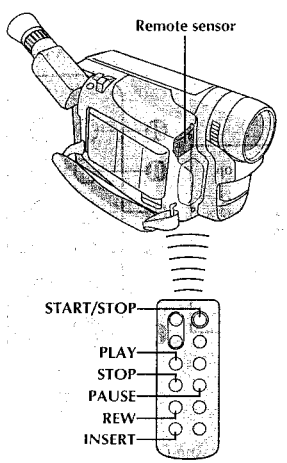
1) Set
Instead of performing steps **1** through **3** on pg. 41 ("Time-Lapse"), press **INT. TIME** and **REC TIME** on the remote control. Each time **INT. TIME** is pressed, the Interval Timer indicator appears, changing in the following order: 15S, 30S, 1MIN, 5MIN and No indication (off). Each time **REC TIME** is pressed, the Rec Time indicator appears, changing in the following order: 1/4S, 1/2S, 1S, 5S and No indication (off).

2) Release
Instead of using the Menu in step **5** on pg. 41, press **INT. TIME** and **REC TIME** on the remote control until the indicators disappear.

NOTE:
Also refer to pgs. 40 and 41.







Insert Editing

You can record a new scene onto a previously recorded tape, replacing a section of the original recording with minimal picture distortion at the in- and out-points. The original audio remains unchanged.

NOTE:

Use the RM-V705U remote control unit to perform this procedure.

1 SELECT OPERATION MODE
Set the Power Switch to "PLAY".

2 FIND EDIT-OUT POINT
Play back the tape, locate the point and press **PAUSE** on the camcorder or the remote control.

3 RESET COUNTER
Press and hold **COUNTER R/M** for more than 1 second to reset the tape counter, then press again for less than 1 second so that "M" appears.

4 FIND EDIT-IN POINT
Press **REW** to go a little beyond the beginning of the scene you want to replace, press **PLAY** to view the recorded tape, and press **PAUSE** exactly at the point where the new scene should start.

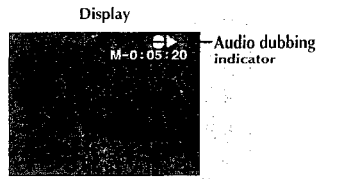
5 ENGAGE INSERT EDITING MODE
Press and hold **INSERT**, and without releasing **INSERT**, press and release **PAUSE**. The Insert Editing standby mode is engaged. The Insert Editing Indicator is displayed on the top left corner of the LCD monitor or viewfinder. When the scene the camcorder is aimed at appears on the screen, go to the next step.

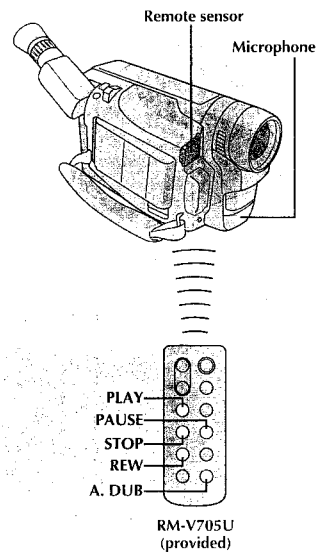
6 BEGIN INSERT EDITING
Press **START/STOP**. When the counter reaches "0:00:00", editing stops automatically and the camcorder enters the Insert-Pause mode.

7 END INSERT EDITING
Press **STOP**.

NOTES:

- *During Insert Editing, the original audio will be heard from the speaker.*
- *After step 5, Retake (☞ pg. 23) can be performed.*
- *The tape may stop slightly before or after the designated end point, and noise bars may appear. Neither indicates a defect in the unit.*
- *Only the video signal is recorded in the Insert Editing mode.*





Audio Dubbing

You can record a new soundtrack on a prerecorded tape (normal audio only).

Perform steps **1**, **2** and **3** of the Insert Editing procedure (☞ pg. 50) before continuing.

- The sound comes from the built-in microphone.

1 FIND EDIT-IN POINT
Press **REW** to go a little beyond the beginning of the scene onto which you want to dub the new audio, press **PLAY** to view the recorded tape, then press **PAUSE** at exactly the point where dubbing should start.

2 ENGAGE AUDIO DUB-STANDBY MODE
Press and hold **A. DUB**, and without releasing **A. DUB**, press and release **PAUSE**. The Audio Dub standby mode is engaged. The Audio Dubbing Indicator is displayed on the top right corner of the LCD monitor or viewfinder.

3 BEGIN AUDIO DUBBING
Press **PLAY**. When the counter reaches "0:00:00", Audio Dubbing stops automatically and the camcorder enters the Audio Dub-Standby mode.

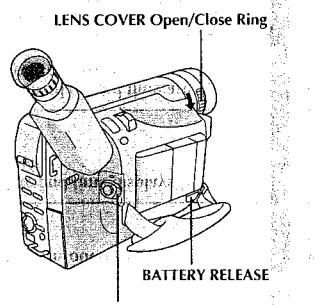
4 END AUDIO DUBBING
Press **STOP**.

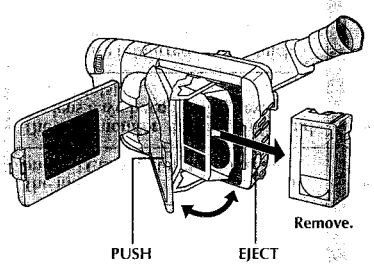
NOTES:

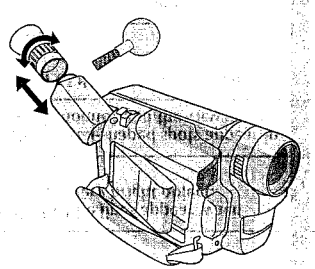
- *Do not press **FF** or **REW** during Audio Dub-Standby, or the edit points will not be accurate.*
- *If the microphone is too close to the TV, or if the TV's volume is too high, whistling or howling may occur.*

NOTES (for Insert Editing and Audio Dubbing):

- *Insert Editing and Audio Dubbing may not work correctly if the tape contains blank segments, or if the recording speed was changed during the original recording.*
- *To edit/dub onto a tape, make sure the Erase Protection tab is in the position that allows recording. If not, slide the tab. Some cassettes have removable tabs. If the tab has been removed, cover the hole with adhesive tape.*
- *Do not press **STOP** during Insert Editing or Audio Dubbing, or the edit points will not be accurate.*
- *During Insert Editing and Audio Dubbing, when Insert-Pause or Audio Dub-Standby is engaged, the counter may go slightly past "0:00:00". Recording, however, stops at exactly 0:00:00.*







After Use

1. Set the Power Switch to "POWER OFF" to turn off the camcorder.
2. Open the LCD monitor to an angle of over 60 degrees. Slide **EJECT** to open the cassette holder, then remove the cassette.
3. Close and lock the cassette holder by pressing **PUSH**.
4. Close and lock the LCD monitor.
5. Slide **BATTERY RELEASE** to remove the battery pack.
6. Turn the **LENS COVER** Open/Close Ring to close the lens cover.

Cleaning The Camcorder

1. **CLEAN EXTERIOR**
   Wipe gently with a soft cloth.
   - Put cloth in diluted mild soap and wring it well to wipe off heavy dirt, then wipe again with a dry cloth.
2. **CLEAN LCD MONITOR**
   Open the LCD monitor and wipe it gently with a soft cloth. Be careful not to damage the monitor. Close the LCD monitor.
3. **CLEAN LENS**
   Blow it with a blower brush, then wipe it gently with lens cleaning paper.
4. **REMOVE EYEPIECE**
   Turn the eyepiece counterclockwise and pull it out.
5. **CLEAN VIEWFINDER**
   Remove dust using a blower brush.
6. **RE-ATTACH EYEPIECE**
   Re-attach the eyepiece and turn it clockwise.

NOTES:

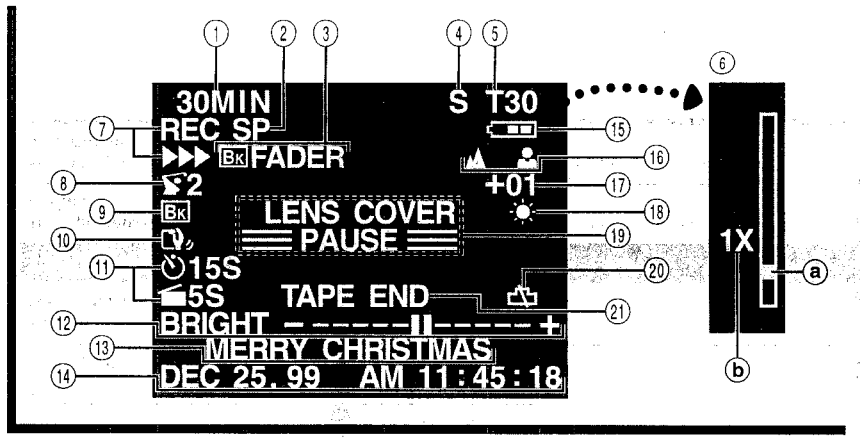
- *Avoid using strong cleaning agents such as benzine or alcohol.*
- *Cleaning should be done only after the battery pack has been removed or other power units have been disconnected.*
- *Mold may form if the lens is left dirty.*
- *When using a cleaner or chemically treated cloth, refer to the cautions that came with it.*
- *When removing the eyepiece, be sure to hold the viewfinder securely.*

If, after following the steps in the chart below, the problem still exists, please consult your JVC dealer.

The camcorder is a microcomputer-controlled device. External noise and interference (from a TV, a radio, etc.) might prevent it from functioning properly. In such cases, first disconnect its power supply unit (battery pack, AC Power Adapter/Battery Charger, etc.) and clock battery; and then re-connect it and proceed as usual from the beginning.

SYMPTOM	POSSIBLE CAUSE(S)
POWER	
No power is supplied.	• The battery pack has not been attached correctly (☞ pg. 8). • The battery pack is not charged (☞ pg. 8). • The power supply has not been correctly connected (☞ pg. 9).
The power suddenly goes off and does not come back on by itself.	• The battery pack has completely discharged. • Remove the cassette and disconnect the power source, then after a few minutes, try turning the power back on. If it still does not come on, consult your nearest JVC dealer.
RECORDING	
Recording cannot be performed.	• Make sure the Erase Protection tab is in the position that allows recording. If not, slide the tab. Some cassettes have removable tabs. If the tab has been removed, cover the hole with adhesive tape.
Recording does not start.	• The camcorder Power Switch has not been set to "CAMERA" ("AUTO" or "PRO"). (☞ pg. 18).
PLAYBACK	
The tape is running, but there is no playback picture.	• The TV has not been set to its VIDEO mode or channel. • If A/V connection is used, the TV's VIDEO/TV Switch has not been set to VIDEO.
Playback picture is blurred or interrupted.	• The video heads are dirty or worn out. Consult your nearest JVC dealer for head cleaning or replacement.
The counter indication is blurred during Still playback.	• This is normal.
TAPE TRANSPORT	
The tape stops during fast-forward or rewind.	• The Counter Memory Function has been activated (☞ pg. 44).
Rewinding or fast-forwarding cannot be performed.	• The tape is already fully wound on one reel or the other.

SYMPTOM	POSSIBLE CAUSE(S)
OTHER	
During recording, the indications do not appear.	• Press **DISPLAY** for longer than 1 second to make the indications appear (☞ pg. 19).
The tape will not eject.	• The battery pack is running low. • If the LCD monitor is not open over 60 degrees, the **EJECT** Switch does not function.
Some functions are not available.	• The Power Switch is set to "AUTO". • Certain combinations of modes or effects are not possible to use.
Vertical white lines appear when shooting a very bright object.	• This sometimes occurs when the contrast between the background and the object is great. It is not a defect of the camcorder.
Bright, crystal-shaped spots appear in the LCD monitor and the viewfinder.	• Sunlight is directly entering the lens. This is not a defect of the camcorder.
The rear of the LCD monitor is hot.	• The light used to illuminate the LCD monitor causes it to be hot. Close the LCD monitor to turn it off or set the Power Switch to "OFF", and let the unit cool down.
Colored bright spots appear all over the LCD monitor or the viewfinder.	• The LCD monitor and the viewfinder are made with high-precision technology. However, black spots or bright spots of light (red, green or blue) may appear constantly on the LCD monitor or in the viewfinder. These spots are not recorded on the tape. This is not due to any defect of the unit. (Effective dots: more than 99.99 %.)
The indicators and the picture color on the LCD monitor are not clear.	• This may occur when the surface or the edge of the LCD monitor is pressed.
The LCD monitor, the viewfinder and the lens have become dirty (ex. fingerprints).	• Wipe them gently with a soft cloth. Gently wipe in a semicircular motion, as wiping strongly spreads the stain and it won't come out easily.
The picture is blurred in the Quick Review or Retake mode.	• This is normal while recording in the EP mode. Some noise may be present while recording in the SP mode (☞ pg. 12).
An error number (i.e. E03) appears.	• Turn the camcorder's power off, then disconnect the power source. After a few minutes, try turning the power on again. If the error number still appears in the viewfinder, consult your nearest JVC dealer.
The image is out of focus.	• The diopter needs to be adjusted (☞ pg. 16). • The scene being shot is adversely affecting the operation of Auto Focus (☞ pg. 36).
The date and time displays disappear.	• If you remove the power source from the camcorder while the power is on, all settings and selections are erased. Make sure to turn the camcorder's power off before disconnecting the power source.
The wrong date and time are displayed/recorded.	• If you have not performed Date/Time Setting (☞ pg. 11), the date and time are not displayed/recorded correctly. Be sure that Date/Time setting is carried out.
Even though the lens cover is open, the Lens Cover Warning indicator blinks.	• The Lens Cover Warning indicator may blink when the camcorder is used in dark areas, regardless of the position of the lens cover.



① Cassette Warning/ Tape Remaining Time ..... ☞ pg. 19
When no cassette is inserted: the cassette ( ) warning blinks.
When the Erase Protection tab is not in the position that allows recording: the cassette ( ) warning lights. Otherwise, the tape remaining time is displayed and the tape remaining time warning blinks when the tape is about to reach its end.
When the Power Switch is set to "PLAY" and a tape is loaded: the cassette ( ) mark is displayed regardless of the Erase Protection tab's position.

② Recording Mode (SP/EP) Indicator ..... ☞ pg. 12

③, ⑧ Program AE Indicator ..... ☞ pg. 28
Displayed at ③ for approx. 2 seconds when Program AE with special effects is switched from one mode to another by pressing **P.AE.**, then only the indicator remains at ⑧.

③, ⑨ Fade/Wipe-Standby Indicator ..... ☞ pg. 27
Displayed at ③ for approx. 2 seconds when the Fade/Wipe is switched from one effect to another by pressing **EFFECT**, then only the indicator remains at ⑨.

④ • Recording Format Indicator ..... ☞ pg. 14
• S-VHS ET Indicator ..... ☞ pg. 14

⑤ Tape Length Indicator ..... ☞ pg. 12

⑥ Zoom Indicator Bar ..... ☞ pg. 22
ⓐ Zoom Level Indicator
ⓑ Approximate Zoom Ratio

⑦ Recording Indicator ..... ☞ pg. 18

⑩ Picture Stabilizer Indicator ..... ☞ pg. 24

⑪ Interval Timer/Recording Time Indicator ..... ☞ pg. 40

⑫ • Bright Level Indicator ..... ☞ pg. 43
• Speaker Volume Indicator ..... ☞ pg. 43

⑬ Instant Title Display ..... ☞ pg. 31

⑭ Date/Time Display ..... ☞ pg. 30

⑮ Battery Pack Remaining Power Indicator
Changes as follows according to the battery pack's remaining power level:
"→→→→". When the power is almost gone, the indicator " " blinks (battery power warning), then the unit shuts off. Replace the battery pack with a fully charged one.
Note: The symbol containing 3 darkened squares — — does not necessarily mean that the battery pack is fully charged.

⑯ Focus Indicator ..... ☞ pg. 37

⑰ Exposure Control Level Counter ..... ☞ pg. 35

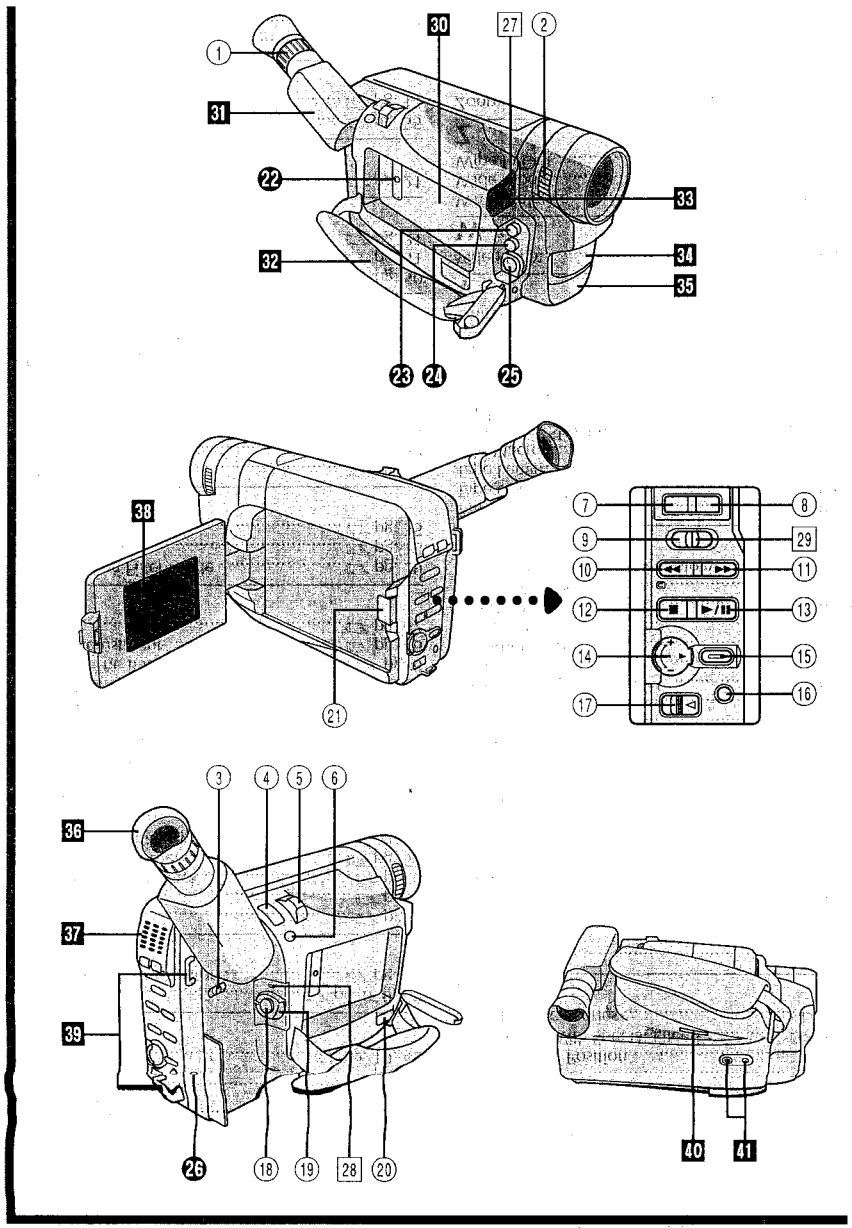
⑱ White Balance Mode Indicator ..... ☞ pg. 38

⑲ • Record–Standby Mode Indicator ..... ☞ pg. 18
• Lens Cover Warning:
LENS COVER ..... ☞ pg. 19

⑳ Clock Battery Warning
Blinks for approx. 10 seconds when the power is turned on. This display also blinks when the clock (lithium) battery is either not installed or has discharged. Install or replace the old battery with a new one (☞ pg. 10).

㉑ • Tape End Display: TAPE END ..... ☞ pg. 19
Appears when the end of the tape is reached during playback, recording or fast-forward.
• Condensation Warning:
When this indication appears, all functions except tape eject and power on/off are disabled. Turn the unit off (without removing the power source) for a few hours, and when you turn it on again the indication should disappear.
• Head Clog Warning:
Appears if dirty heads are detected during recording. In such a case, use the optional Cleaning Cassette. If, after using it, the problems still exist, consult your nearest JVC dealer.

INDEX Controls, Connectors And Indicators



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① Diopter Adjustment Control ..... ☞ pg. 16
② Lens Cover Open/Close Ring ..... ☞ pg. 18
③ Video Light Switch [LIGHT OFF/AUTO/ON] ..... ☞ pg. 25
④ • Snapshot Button [SNAPSHOT] ..... ☞ pg. 26
⑤ • Power Zoom Lever [T/W] ..... ☞ pg. 22
• Speaker Volume Control [VOL.] ..... ☞ pg. 43
⑥ Picture Stabilizer Button [P.STABILIZER] ..... ☞ pg. 24
⑦ Program AE Button [P.AE] ..... ☞ pg. 28
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⑫ Stop Button [■, STOP] ..... ☞ pg. 42
⑬ Play/Pause Button [▶/❚❚, PLAY/PAUSE] ..... ☞ pg. 42
⑭ • Select Dial [+, –, PUSH] ..... ☞ pg. 11, 32
• Bright Dial [BRIGHT] ..... ☞ pg. 21
⑮ MENU/DISPLAY Button ..... ☞ pg. 19, 32
⑯ • Counter Reset/Memory Button [COUNTER R/M] ..... ☞ pg. 44
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⑱ Recording Start/Stop Button ..... ☞ pg. 18
⑲ Power Switch ..... ☞ pg. 18, 42
⑳ Battery Release Switch [BATTERY RELEASE] ..... ☞ pg. 8
㉑ PUSH Button ..... ☞ pg. 13

Connectors

㉒ DC IN Jack ..... ☞ pg. 9

The connectors ㉓ to ㉖ are located beneath the cover.

㉓ Video Output Connector ..... ☞ pg. 46
㉔ Audio Output Connector ..... ☞ pg. 46
㉕ S-Video Output Connector ..... ☞ pg. 46
㉖ J Terminal [JLIP (Joint Level Interface Protocol) Connector]

- It is used to connect the camcorder to a device such as a personal computer. For further details consult your nearest JVC dealer.
- JLIP-controlled editing from camcorder to VCR is not possible if the VCR is not equipped with a J terminal.

Indicators

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28 Power Lamp ..... ☞ pg. 18
29 S-VHS ET Lamp ..... ☞ pg. 14

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31 Viewfinder ..... ☞ pg. 16
32 Grip Strap ..... ☞ pg. 16
33 • Camera sensor
Be careful not to cover this area; a sensor necessary for shooting is built-in here.
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34 Video Light ..... ☞ pg. 25
35 Microphone ..... ☞ pg. 51
36 Eyepiece ..... ☞ pg. 52
37 Speaker ..... ☞ pg. 43
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DANGER:

Video Light

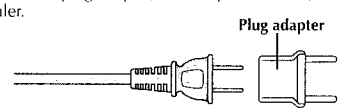
- The video light becomes extremely hot. Do not touch it either while in operation or soon after turning it off, otherwise serious injury may result.
- Do not place the camcorder into the carrying case immediately after using the video light, since it remains extremely hot for some time.
- When operating, keep a distance of about 30 cm (1 ft.) between the video light and people or object.
- Do not use near flammable or explosive materials.
- It is recommended that you consult your nearest JVC dealer for replacing the video light.

When using the AC Power Adapter/Charger in areas other than the USA

■ The provided AC Power Adapter/Charger features automatic voltage selection in the AC range from 110 V to 240 V.

USING HOUSEHOLD AC PLUG ADAPTER

In case of connecting the unit's power cord to an AC wall outlet other than American National Standard C73 series type use an AC plug adapter, called a "Siemens Plug", as shown.
For this AC plug adapter, consult your nearest JVC dealer.



INFORMATION

This device complies with Part 15 of FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. Change or modifications not approved by the party responsible for compliance could void the user's authority to operate the equipment. This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

Reorient or relocate the receiving antenna.
Increase the separation between the equipment and receiver.
Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
Consult the dealer or an experienced radio/TV technician for help.

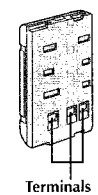
General Battery Precautions

- When the C-P6U or C-P7U (cassette adapter) is not functioning even when correctly operated, the battery is exhausted. Replace it with a fresh one.
- Use only the following battery:
  C-P6U or C-P7U ..... AA (R6) size

Please make note of the following rules for battery use. When misused, the battery can leak or explode.

1. Refer to the C-P6U/C-P7U instructions when replacing the battery.
2. **Do not** expose the battery to excessive heat as it can leak or explode.
3. **Do not** dispose of the battery in a fire.
4. Remove the battery from the unit if it is to be stored for an extended period to avoid battery leakage which can cause malfunctions.

Battery Packs



The battery packs are nickel-cadmium or nickel metal-hydride batteries. Before using the supplied battery pack or an optional battery pack, be sure to read the following cautions:

1. To avoid hazard . . .
- .... **do not** burn.
- .... **do not** short-circuit the terminals.
- .... **do not** modify or disassemble.
- .... use only specified chargers.

2. To prevent damage and prolong service life . . .
- .... **do not** subject to unnecessary shock.
- .... avoid repeated charging without fully discharging.
- .... charge in an environment where temperatures are within the tolerances shown in the chart below. This is a chemical reaction type battery—cooler temperatures impede chemical reaction, while warmer temperatures can prevent complete charging.
- .... store in a cool, dry place. Extended exposure to high temperatures will increase natural discharge and shorten service life.
- .... avoid prolonged uncharged storage.
- .... remove from charger or powered unit when not in use, as some machines use current even when switched off.

NOTES:

- *It is normal for the battery pack to be warm after charging, or after use.*
  Temperature Range Specifications
  Charging ..... 10°C to 35°C (50°F to 95°F)
  Operation ..... 0°C to 40°C (32°F to 104°F)
  Storage ..... –10°C to 30°C (14°F to 86°F)
- *Recharging time is based on room temperature of 20°C (68°F).*
- *The lower the temperature, the longer recharging takes.*

Cassettes

To properly use and store your cassettes, be sure to read the following cautions:

1. During use . . .
- .... make sure the cassette bears the S-VHS-C or the VHS-C mark.
- .... be aware that recording onto prerecorded tapes automatically erases the previously recorded video and audio signals.
- .... make sure the cassette is positioned properly when inserting.
- .... do not load and unload the cassette repeatedly without allowing the tape to run at all. This slackens the tape and can result in damage.
- .... do not open the front tape cover. This exposes the tape to fingerprints and dust.

2. Store cassettes . . .
- .... away from heaters or other heat sources.
- .... out of direct sunlight.
- .... where they won't be subject to unnecessary shock or vibration.
- .... where they won't be exposed to strong magnetic fields (such as those generated by motors, transformers or magnets).
- .... vertically, in their original cases.

Main Unit

1. For safety, DO NOT . . .
- .... open the camcorder's chassis.
- .... disassemble or modify the unit.
- .... short-circuit the terminals of the battery pack. Keep it away from metallic objects when not in use.
- .... allow inflammables, water or metallic objects to enter the unit.
- .... remove the battery pack or disconnect the power supply while the power is on.
- .... leave the battery pack attached when the camcorder is not in use.

2. Avoid using the unit . . .
- .... in places subject to excessive humidity or dust.
- .... in places subject to soot or steam such as near a cooking stove.
- .... in places subject to excessive shock or vibration.
- .... near a television set.
- .... near appliances generating strong magnetic or electric fields (speakers, broadcasting antennas, etc.).
- .... in places subject to extremely high (over 40°C or 104°F) or extremely low (under 0°C or 32°F) temperatures.

3. DO NOT leave the unit . . .
- .... in places of over 50°C (122°F).
- .... in places where humidity is extremely low. (below 35%) or extremely high (above 80%).
- .... in direct sunlight.
- .... in a closed car in summer.
- .... near a heater.

4. To protect the unit, DO NOT . . .
- .... allow it to become wet.
- .... drop the unit or strike it against hard objects.
- .... subject it to shock or excessive vibration during transportation.
- .... keep the lens directed at extremely bright objects for long periods.
- .... direct the eyepiece of the viewfinder at the sun.
- .... carry it by holding the viewfinder or the LCD monitor. Be sure to hold the main unit with both hands or use the grip.
- .... swing it excessively when using the shoulder strap.

LCD Monitor

1. To prevent damage to the LCD monitor, DO NOT . . .
- .... push it strongly or apply any shocks.
- .... place the camcorder with the LCD monitor on the bottom.

2. To prolong service life . . .
- .... avoid rubbing it with coarse cloth.

3. Be aware of the following phenomena for LCD monitor use. These are not malfunctions . . .
- While using the camcorder, the surface around the LCD monitor and/or the back of the LCD monitor may heat up.
- If you leave power on for a long time, the surface around the LCD monitor becomes hot.

About moisture condensation . . .
- You may have observed that pouring a cold liquid into a glass will cause drops of water to form on the glass' outer surface. This same phenomenon occurs on the head drum of a camcorder when it is moved from a cool place to a warm place, after heating a cold room, under extremely humid conditions or in a place directly subjected to the cool air from an air conditioner.
- Moisture on the head drum can cause severe damage to the video tape, and can lead to internal damage to the camcorder itself.

Serious malfunctioning

If malfunctioning occurs, stop using the unit immediately and consult your local JVC dealer.

Camcorder

General

Format	: VHS NTSC standard
Power source	: DC 6.0 V ⎓
Power consumption	
LCD monitor off, viewfinder on	
GR-SXM915	: 6.3 W
GR-SXM515	: 6.5 W
LCD monitor on, viewfinder off	
GR-SXM915	: 6.8 W
GR-SXM515	: 7.0 W
LCD monitor on, viewfinder on	
GR-SXM915	: 7.4 W
GR-SXM515	: 7.6 W
Video light	: 2.9 W
Signal system	: NTSC-type
Video recording system	
Luminance	: FM recording
Color	: Converted sub-carrier direct recording Conforms to VHS standard
Cassette	: S-VHS C / VHS C cassette
Tape speed	
SP	: 33.35 mm/sec. (1-5/16 ips)
EP	: 11.12 mm/sec. (7/16 ips)
Recording time (max.)	
SP	: 40 minutes
EP	: 120 minutes (with TC-40)
Operating temperature	: 0°C to 40°C (32°F to 104°F)
Operating humidity	: 35% to 80%
Storage temperature	: –20°C to 50°C (–4°F to 122°F)
Weight	
GR-SXM915	: Approx. 870 g (2.0 lbs)
GR-SXM515	: Approx. 890 g (2.0 lbs)
Dimensions	: 99 (W) x 119 (H) x 198 (D) mm (3-15/16" x 4-11/16" x 7-13/16") (with the LCD monitor closed and with the viewfinder fully tilted downward)
Pickup	: 1/4" format CCD
Lens	: F1.6, f = 3.9 to 62.4 mm, 16:1 power zoom lens with auto iris and macro control, filter diameter 40.5 mm
Viewfinder	
GR-SXM915	: Electronic viewfinder with 0.55" color LCD
GR-SXM515	: Electronic viewfinder with 0.5" black/white CRT
White balance adjustment	: Auto/Manual adjustment
LCD monitor	
GR-SXM915	: 3" diagonally measured, LCD panel/TFT active matrix system
GR-SXM515	: 2.5" diagonally measured, LCD panel/TFT active matrix
Speaker	: Monaural

Connectors

S-Video	: **Y** : 1Vp-p, 75 Ω, analog output **C** : 0.29 Vp-p, 75 Ω, analog output
JLIP	: ø3.5 mm, 4-pole, mini-head jack (compatible with RC-5325 plug)
Video	: 1 Vp-p, 75 Ω unbalanced, analog output (via Video output connector)
Audio	: –8 dBs, 1 kΩ analog output (via Audio output connector)

AC Power Adapter/Charger AA-V15U

Power requirement	
U.S.A. and Canada	: AC 120 V∿, 60 Hz
Other countries	: AC 110 V to 240 V∿, 50/60 Hz
Power consumption	: 23 W
Output	
Charge	: DC 8.5 V ⎓, 1.3 A
VTR	: DC 6.3 V ⎓, 1.8 A
Charging system	: Constant current, peak detection, timer controlled
Dimensions	: 140 (W) x 42 (H) x 68 (D) mm (5-9/16" x 1-11/16" x 2-11/16")
Weight	: Approx. 300 g (0.71 lbs)

Cassette Adapter C-P7U

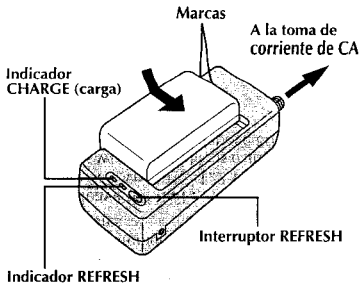
Dimensions	: 188 (W) x 25 (H) x 104 (D) mm (7-7/16" x 1" x 4-1/8")
Weight	: Approx. 240 g (0.53 lbs)
Accessory	: "AA (R6)"-size battery x 1

Provided Accessories ..... ☞ pg. 6

Optional Accessories
- Battery Packs BN-V12U, BN-V20U, BN-V856U
- Car Battery Charger BH-V3U
- Battery Charger BH-VC10U
- Car Battery Cord AP-V7U
- Compact S-VHS (S-VHS C) Cassettes ST-C-40/30/20
- Compact VHS (VHS C) Cassettes TC-40/30/20
- Active Carrying Bag CB-V7U
- S-Video Cable QAM0004-004
- Audio/Video Cable
- JLIP-to-PC Cable VC-VJ49WU
- JLIP Video Producer
- Brush Kit

Some accessories are not available in some areas. Please consult your nearest JVC dealer for details on accessories and their availability.

Specifications shown are for SP mode unless otherwise indicated. E & O.E. Design and specifications subject to change without notice.

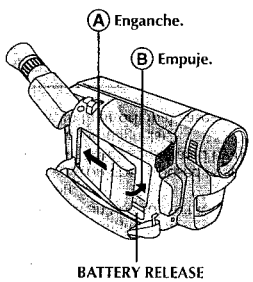


REFRESCADO (REFRESH)
El adaptador de CA se caracteriza por la función REFRESH que le permite descargar totalmente la batería antes de recargarla.

Efectúe la función REFRESH después de un mínimo de 5 cargas.

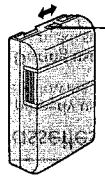
Para descargar la batería . . .

.... coloque la batería en el adaptador como se muestra en la ilustración de arriba. Luego presione REFRESH. El indicador REFRESH se enciende cuando se inicia la descarga y se apaga cuando la descarga ha terminado.



ATENCION:

Antes de desmontar la fuente de alimentación, asegúrese que la alimentación de la cámara de video esté desconectada. El no hacerlo puede producir un error de funcionamiento en la cámara de video.



Indicador de carga
Se incorpora un indicador de carga sobre la batería para ayudarle a recordar si ha sido cargada o no. Los dos colores indicadores (rojo y negro), le permiten seleccionar la carga y la descarga.

Alimentación

Esta cámara de video posee un sistema de alimentación de 3 vías que le permite seleccionar la fuente de alimentación más apropiada.

NOTAS:

- *Sin alimentación no hay ninguna función disponible.*
- *Utilice exclusivamente la alimentación indicada.*
- *No utilice las unidades de alimentación suministradas con otro equipo.*

CARGA DE LA BATERIA

1 ALIMENTACION
Conecte el cable de alimentación de CA del cargador a una toma de corriente.

2 COLOCACION DE LA BATERIA
Alinee las marcas y deslice la batería en la dirección de la flecha hasta que quede bloqueada en su lugar.

- El indicador CHARGE comienza a destellar para indicar que se ha iniciado la carga.

3 EXTRACCION DE LA BATERIA
Cuando el indicador CHARGE deja de destellar y permanece encendido, la carga ha terminado.
Deslice la batería en el sentido opuesto al de la flecha.

Batería	Tiempo de carga	Tiempo de descarga
BN-V12U	aprox. 1 h 10 min	aprox. 3 h 30 min
BN-V20U	aprox. 1 h 50 min	aprox. 6 h 40 min

USO DE LA BATERIA

1 COLOCACION DE LA BATERIA
Enganche el lado extremo de la batería en la cámara de video (Ⓐ) y empuje la batería hasta que se bloquee en el lugar (Ⓑ).

2 EXTRACCION DE LA BATERIA
Deslice **BATTERY RELEASE** y extraiga la batería.

Tiempo de grabación aproximado (unidad: min)

Batería	Monitor LCD conectado/visor desconectado		Monitor LCD desconectado/ visor conectado		Monitor LCD conectado/ visor conectado	
	①	②	①	②	①	②
BN-V12U	50 (35)	50 (35)	55 (35)	55 (35)	45 (30)	45 (30)
BN-V20U	85 (55)	85 (55)	95 (60)	90 (55)	80 (50)	75 (50)

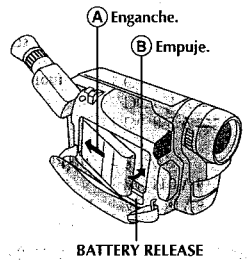
( ) : Cuando está encendida el foco.
① : Cuando emplea la **GR-SXM915**.
② : Cuando emplea la **GR-SXM515**.

INFORMACION:

El VU-V856KIT es un juego compuesto de la batería BN-V856U y del cargador/adaptador de CA AA-V80U. La batería BN-V856U suministra aprox. 7 horas de tiempo de grabación cuando el visor está activado y el monitor LCD y el foco están desactivados. También lea completamente los manuales de instrucción del VU-V856KIT.
Es imposible cargar la batería BN-V856U utilizando el cargador/adaptador de CA suministrado. Use el cargador/adaptador de CA AA-V80U opcional.

Si la unidad comienza a funcionar mal, deje de usarla inmediatamente y consulte a su concesionario local de JVC.

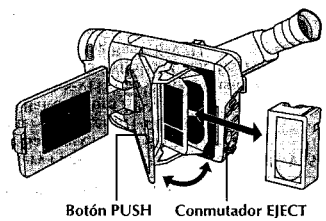
ALIMENTACION



Utilización de la batería
Enganche el lado extremo de la batería en la cámara de video (Ⓐ) y empuje la batería hasta que se bloquee en el lugar (Ⓑ).
(Procedimiento para carga, ☞ p. 8)

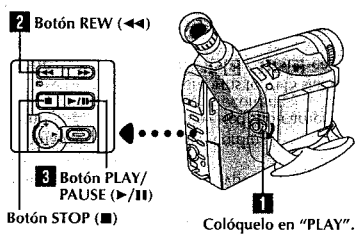
Para extraer la batería
Deslice **BATTERY RELEASE** y extraiga la batería.

INSERCION DEL CASSETTE DE VIDEO



1 Abra el monitor LCD a un ángulo mayor de 60 grados.
2 Deslice **EJECT** para abrir el portacassette.
3 Inserte cassette de video.
4 Presione **PUSH** para cerrar el portacassette. (Por más detalles, ☞ p. 13.)

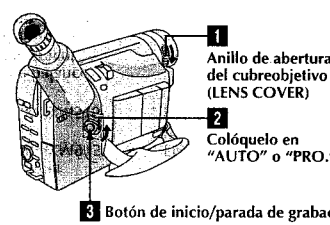
REPRODUCCION



1 Ajuste el interruptor de alimentación en "PLAY".
2 Presione **REW** (◀◀).
— La cinta se detiene automáticamente al comienzo de la misma.
3 Presione **PLAY/PAUSE** (▶/II).
— Comienza la reproducción y la imagen aparece.
- Presione **STOP** (■) para detener la grabación. (Por más detalles, ☞ p. 42.)
- **El visor se desconecta automáticamente para ahorrar energía cuando el monitor LCD es abierto a un ángulo mayor de 60 grados.**
- **El monitor LCD se activa/desactiva cuando se lo abre/cierre a 60 grados aprox.**

O simplemente reproduzca la cinta en un VCR de VHS utilizando el adaptador de cassette (VHS Playpak). ☞ p. 45

FILMACION



1 Gire el anillo LENS COVER de abertura/cierre para abrir el cubreobjetivo.
2 Adjuste el interruptor de alimentación en "AUTO" o "PRO.".
— La lámpara de alimentación se encenderá y aparecerá una imagen.
3 Presione el botón inicio/parada de grabación.
— Comenzará la grabación.
- Para detener temporariamente la grabación, presione nuevamente el botón de inicio/parada de grabación. (Por más detalles, ☞ p. 18 a 21.)
- **El visor se desconecta automáticamente para ahorrar energía cuando el monitor LCD es abierto a un ángulo mayor de 60 grados.**
- **El monitor LCD se activa/desactiva cuando se lo abre/cierre a 60 grados aprox.**

SECTION 1
DISASSEMBLY

1.1 SERVICE CAUTIONS

1.1.1 Precautions

1. Before disassembling/re-assembling the set as well as soldering parts, make sure to disconnect the power cable.
2. When disconnecting/connecting connectors, pay enough attention to wiring not to damage it.
3. In general, chip parts such as resistor, shorting jumpers (0-ohm resistor), ceramic capacitors, diodes, etc. can not be reused after they were once removed.
4. When installing parts, be careful not to do with other parts as well as not to damage others.
5. When removing ICs, be careful not to damage circuit patterns.
6. Tighten screws properly during the procedures. Unless specified otherwise, tighten screws at torque of 0.2 N•m (2.0 kgf•cm).

1.1.2 How to read the disassembly and assembly

(For Cabinet Parts)

STEP /LOC NO.	PART	Fig. No.	REMOVAL	
			*UNLOCK/RELEASE/ UNPLUG/UNCLAMP/ UNSOLDER	NOTE
①	CASSETTE COVER ASSEMBLY	C1	2(S1)	–
②	UPPER CASE	C2	2(S2),(S3), (L1), (L2), 2(L3), (L4)	<NOTE 1>
③	COVER (VF)	C3	2(S3), (L5)	–

① ② ③ ④ ⑤

① : Order of steps in Procedure
When reassembling, preform the step(s) in the reverse order. These numbers are also used as the identification (location) No. of parts Figures.

② : Part to be removed or installed.

③ : Fig. No. showing Procedure or Part Location.

C = Cabinet
CA = Camera
D = Deck

④ : Identification of part to be removed, unhooked, unlocked, released, unplugged, unclamped or unsoldered.

P = Spring
W = Washer
S = Screw
* = Unhook, unlock, release, unplug or unsolder.
2(S2) = 2 Screws (S2)

⑤ : Adjustment information for installation.

1.1.3 Connection of the wires

1. Pull the connector structure upward to release the clamp when removing or inserting the flat wire cable.

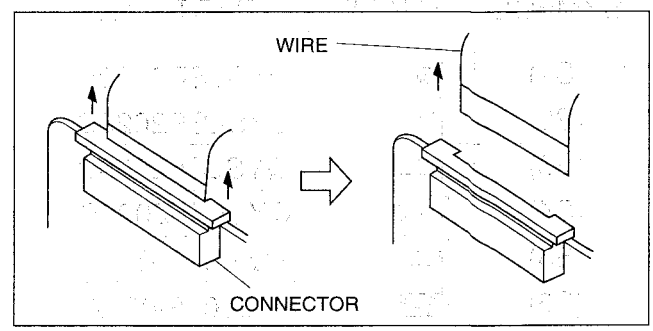
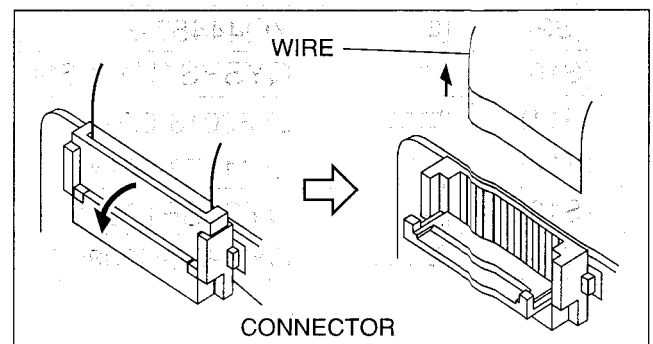


Fig. 1-1-1



NOTE: *After removing the wire, return the stopper to its original position, because it is apt to come off if it is left open.*

Fig. 1-1-2

1.1.4 Main screws to deal with disassembly/assembly

Table 1-1-1 lists screws by their symbols correspond to those shown in figures of this section "Disassembly".

SYMBOL	SHAPE	PARTS NO.
(S1)		QYSLSP2030D
(S2)		QYSLSP2025D
(S3)		QYSLSF2055D
(S4)		QYSLSF2090D
(S5)		YQ43762-5
(S6)		LY30018-051A
(S7)		LY30018-011A
(S8)		QYSLSF2030D
(S9)		YQ44457-3
(S10)		QYSPSTU1725M
(S11)		LY30018-050A
(S12)		LY41173-001A
(S13)		QYSLSF1750D
(S14)		QYSPSGU2080Z

Table 1-1-1

1.2 TOOLS REQUIRED FOR ADJUSTMENTS

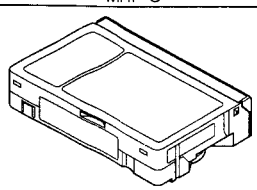
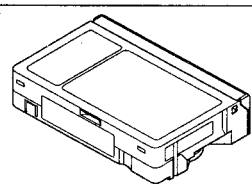
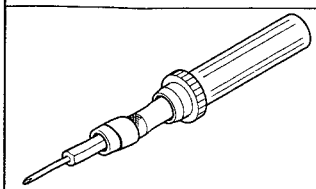
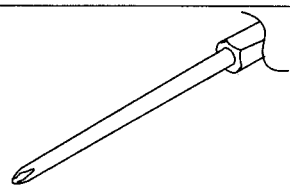
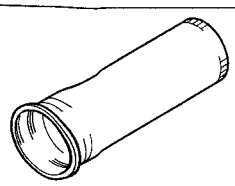
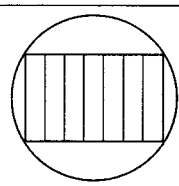
1 Alignment tape (for SP interchangeability) MHP-C	2 Alignment tape (for N. SP PB Y/C level) MHV-2C
	
3 TORQUE DRIVER YTU94088	4 BIT YTU94088-003
	
5 INF ADJUSTMENT LENS YTU92001B	6 COLOR BAR CHART YTU92001-051
	

Table 1-2-1

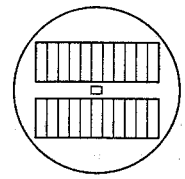
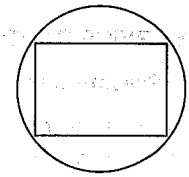
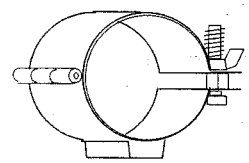
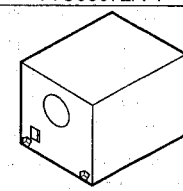
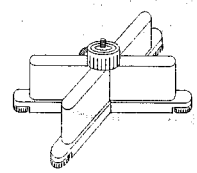
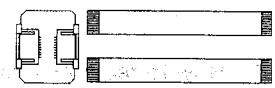
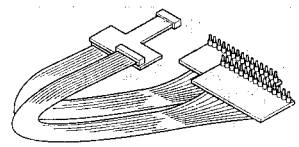
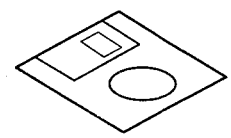
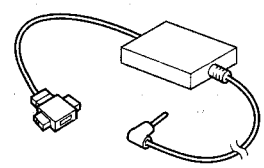
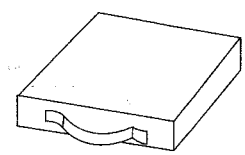
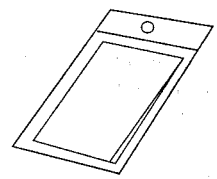
7 GRAY SCALE CHART YTU92001-052	8 WHITE BALANCE CHART YTU92001-053
	
9 INF LENS HOLDER YTU94087	10 LIGHT BOX YTU93072A-1
	
11 CAMERA STAND YTU93079	12 PATCH CORD YTU93098A
	
13 JIG CONNECTOR CABLE YTU93082C	14 SERVICE SUPPORT SOFTWARE YTU94057-38
	
15 PC CABLE QAM0099-002	16 SOLDERING KIT YTU96016B
	
17 CLEANING CLOTH KSMM-01	
	

Table 1-2-2

1,2. Alignment tape
To be used for check and adjustment of interchangeability of the mechanism.
(Video: Color bar signal, Audio: Non-signal)

3. Torque driver
Be sure to use to fastening the mechanism and exterior parts because those parts must strictly be controlled for tightening torque.

4. Bit
This bit is slightly longer than those set in conventional torque drivers.

5. INF adjustment lens
To be used for adjustment of the camera system.

6. Color bar chart
To be used for adjustment of the camera system.

7. Gray scale chart
To be used for adjustment of the camera system.

8. White balance chart
To be used for adjustment of the camera system. (for white balance adjustment)

9. INF lens holder
To be used together with the camera stand (11) for operating the VideoMovie in the stripped-down condition such as the status without the exterior parts or for using commodities that are not yet conformable to the interchangeable ring.

10. Light box
To be used for adjustment of the camera system.

11. Camera stand
To be used together with the INF adjustment lens holder.

12. Patch cord
To be used to connect electrical parts, P.C. boards, etc. for servicing.

NOTE: *This patch cord assembly is new part assembly that "YTU94074-10 and YTU94077-10" included in YTU93097A is replaced with "YTU94074-12 and YTU94077-12".*

13. JIG connector cable
Connected to CN25 of the main board and used for measuring error rates, etc.

14. Service support software
To be used for adjustment with a personal computer.

15. PC cable
To be used to connect the VideoMovie and a personal computer with each other when a personal computer is used for adjustment.

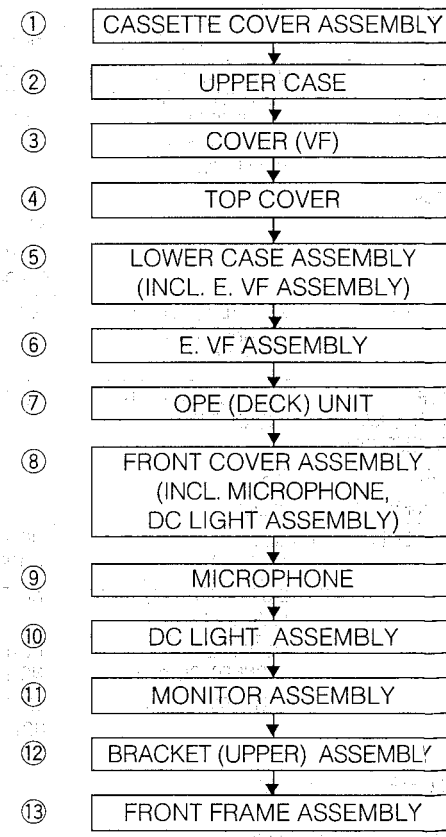
16. Soldering kit
Thin head is made so that it can be inserted into small spaces.

17. Cleaning cloth
Recommended cleaning cloth to wipe down the video heads, mechanism (tape transport system), optical lens

1.3 DISASSEMBLY/ASSEMBLY OF CABINET PARTS

1.3.1 Disassembly flow chart

This flowchart indicates the disassembly step for the cabinet parts and board assembly in order to gain access to item(s) to be serviced. When reassembling, perform the step(s) in reverse order. Bend, route and dress the flat cables as they were originally.


① CASSETTE COVER ASSEMBLY
② UPPER CASE
③ COVER (VF)
④ TOP COVER
⑤ LOWER CASE ASSEMBLY (INCL. E. VF ASSEMBLY)
⑥ E. VF ASSEMBLY
⑦ OPE (DECK) UNIT
⑧ FRONT COVER ASSEMBLY (INCL. MICROPHONE, DC LIGHT ASSEMBLY)
⑨ MICROPHONE
⑩ DC LIGHT ASSEMBLY
⑪ MONITOR ASSEMBLY
⑫ BRACKET (UPPER) ASSEMBLY
⑬ FRONT FRAME ASSEMBLY

1.3.2 Disassembly method

STEP /LOC NO.	PART	Fig. No.	REMOVAL	
			*UNLOCK/RELEASE/ UNPLUG/UNCLAMP/ UNSOLDER	NOTE
①	CASSETTE COVER ASSEMBLY	C1	2(S1)	–
②	UPPER CASE	C2	2(S2), (S3),(L1), (L2), 2(L3) (L4)	<NOTE 1>
③	COVER (VF)	C3	2(S3), (L5)	–
④	TOP COVER	C4	2(S3),2(L6), 2(L7), 2(L8)	<NOTE 2>
⑤	LOWER CASE ASSEMBLY (INCL. E.VF ASSEMBLY)	C5	9(S3), 3(S4), (S1), (L9), (L10) (L11), (L12), (L13), 2(L14) *CONNECTOR Ⓐ, Ⓑ CAP (RCA JACK) COVER (JIG)	<NOTE 3> <NOTE 4> <NOTE 5> <NOTE 6>
⑥	E. VF ASSEMBLY	C6	2(S3)	<SXM515> (B/W)
			2(S3)	<SXM915> (COLOR)
⑦	OPE (DECK) UNIT	C7	2(S3), (L15), (L16), (L17) *CONNECTOR Ⓒ, Ⓓ CAP (REAR JACK)	<NOTE 6>
⑧	FRONT COVER ASSEMBLY (INCL. MIC DC LIGHT ASSEMBLY))	C8	(S5), (S3), (L18), (L19) *CONNECTOR Ⓔ	<NOTE 6>
⑨	MICROPHONE		(S3)	–
⑩	DC LIGHT ASSEMBLY		2(L20)	–
⑪	MONITOR ASSEMBLY	C9	4(S1) *CONNECTOR Ⓕ	<NOTE 6> <NOTE 7>
		C10	2(S6), 4(S7), (L21), (L22) (L23), (L24), (L25)	<NOTE 8>
		C11	2(L26), (L27) *CONNECTOR Ⓖ, Ⓗ, Ⓙ	<NOTE 6> <NOTE 9>
		C12	3(S1), (S8), 2(L28)	<NOTE 10> <NOTE11> <NOTE 12>
⑫	BRACKET (UPPER) ASSEMBLY	C13	3(S3)	–
⑬	FRONT FRAME ASSEMBLY	C14	2(S9)	–

List of Abbreviations:
(S1)=Screw (S1)
4(L1)=4 Locking Tabs (L1)

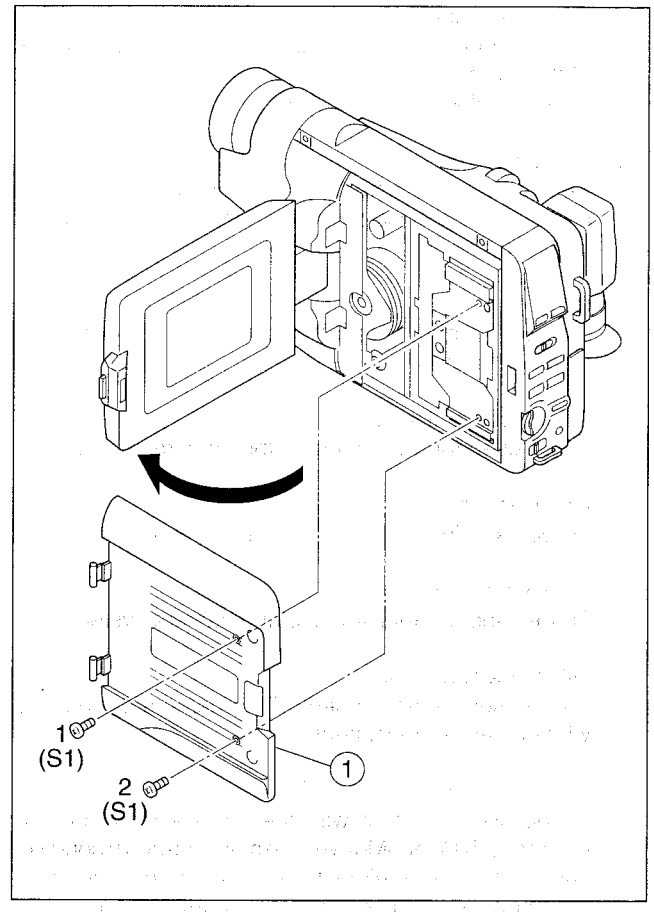


Fig. C1

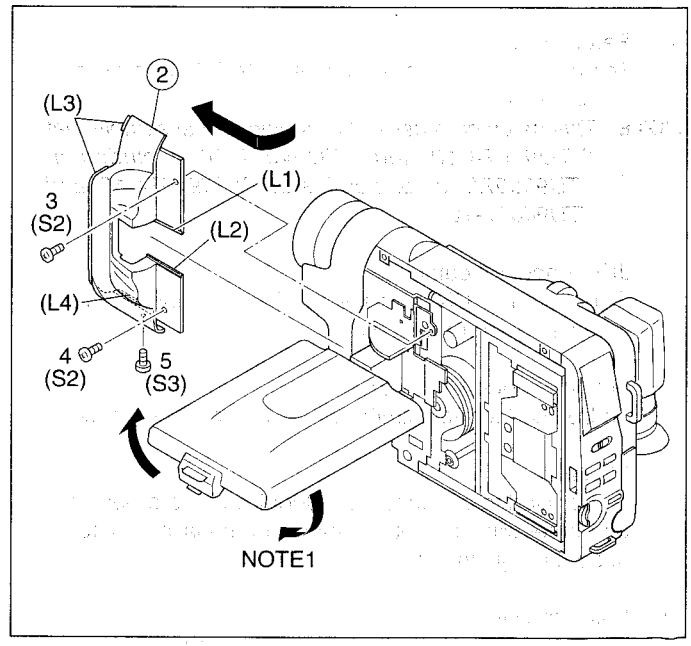


Fig. C2

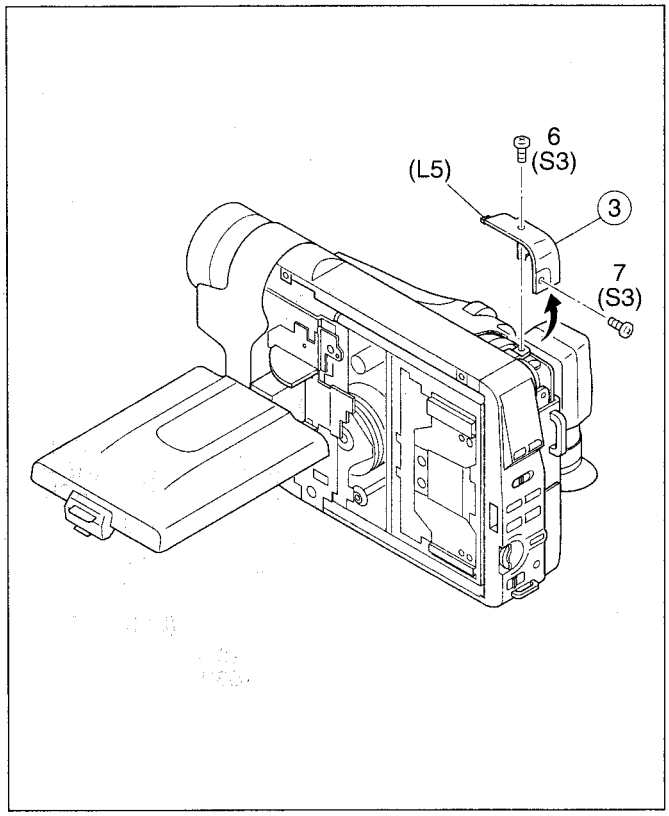


Fig. C3

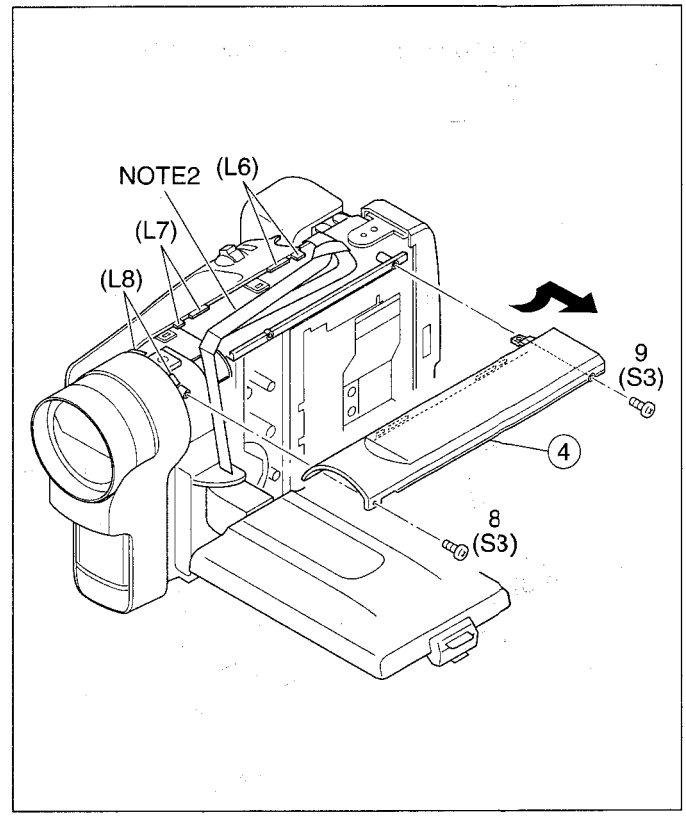


Fig. C4

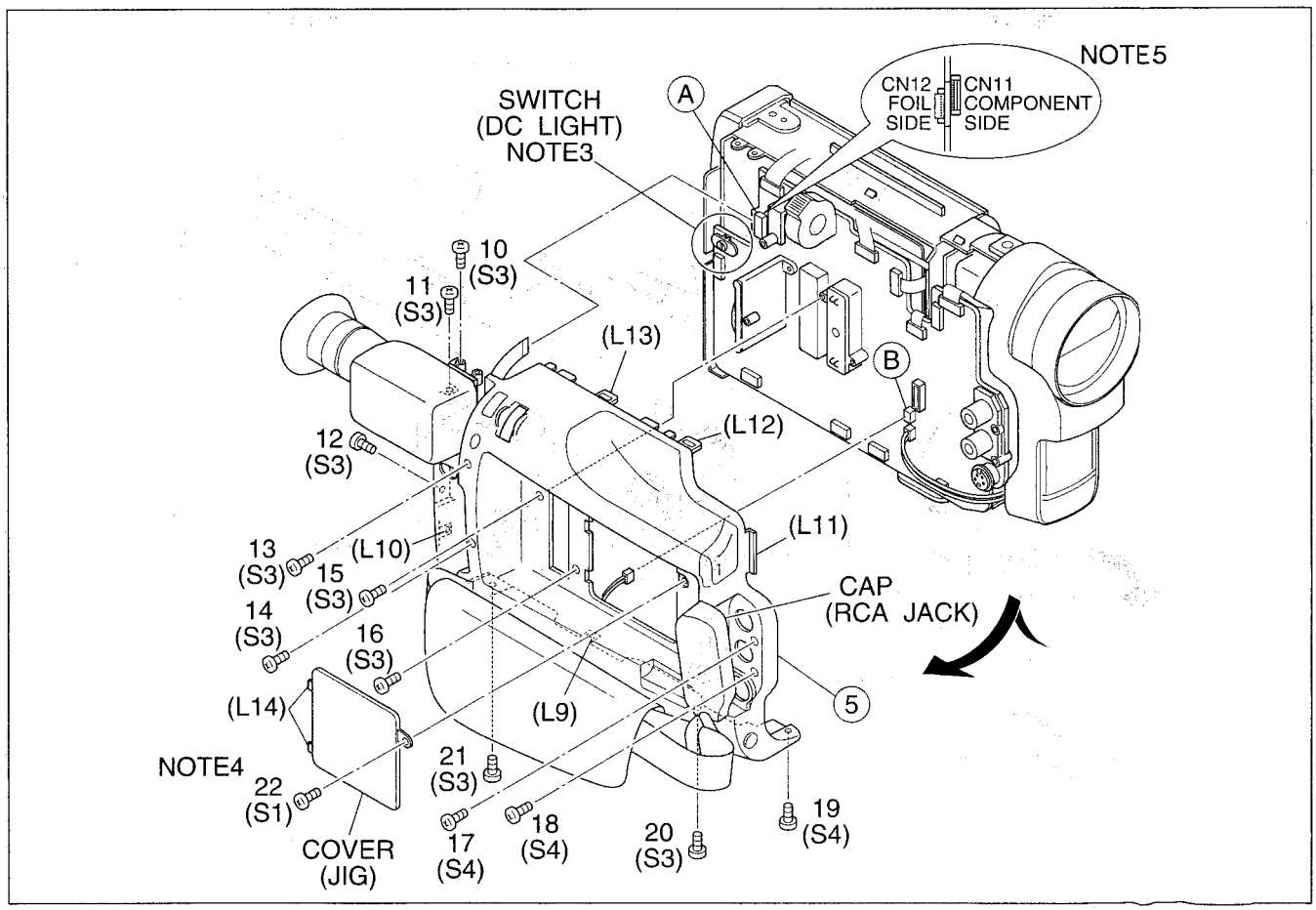


Fig. C5

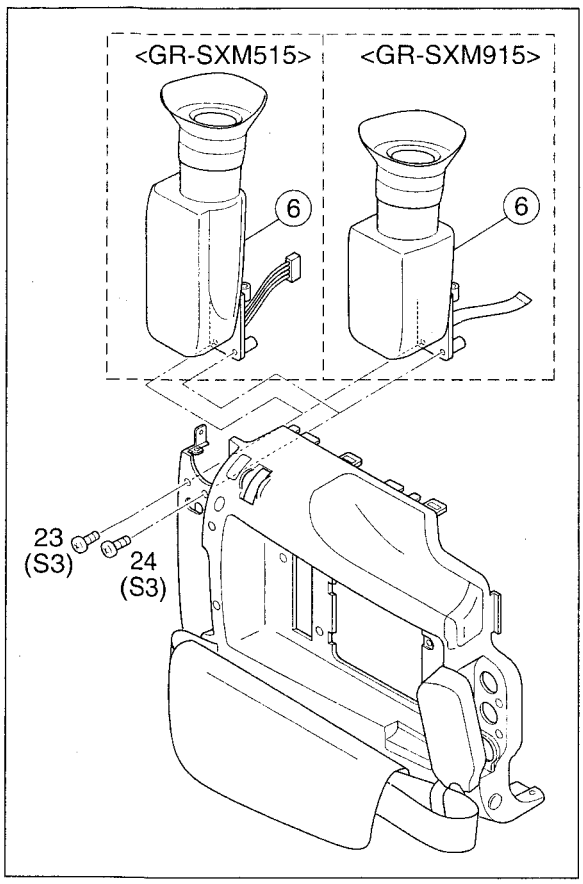


Fig. C6

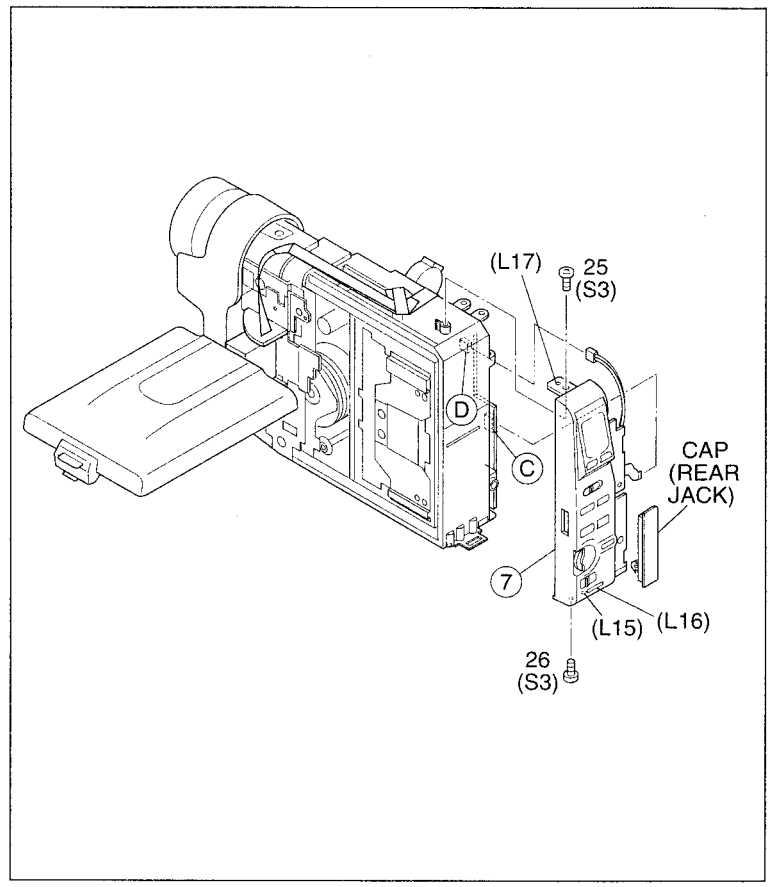


Fig. C7

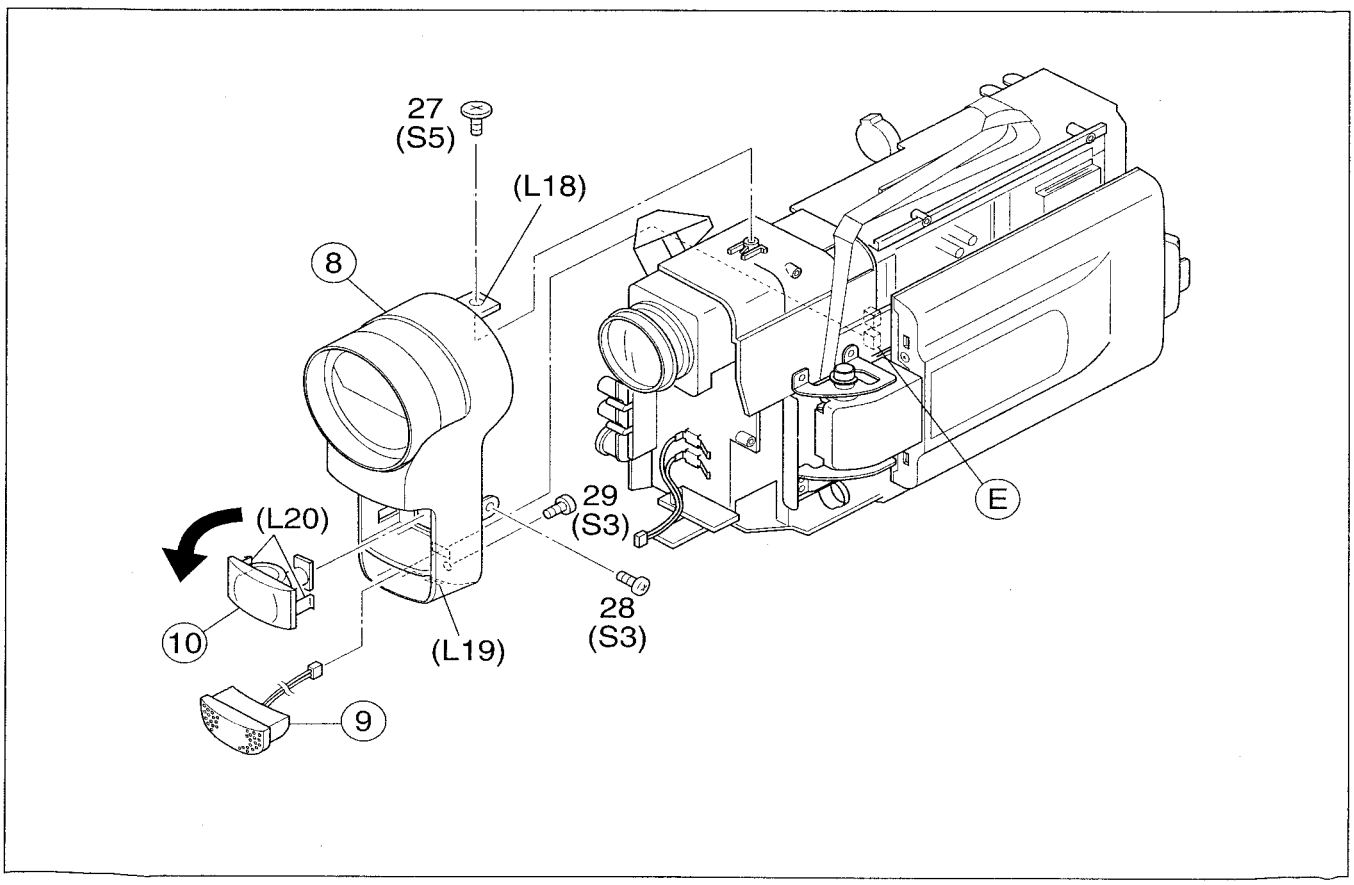


Fig. C8

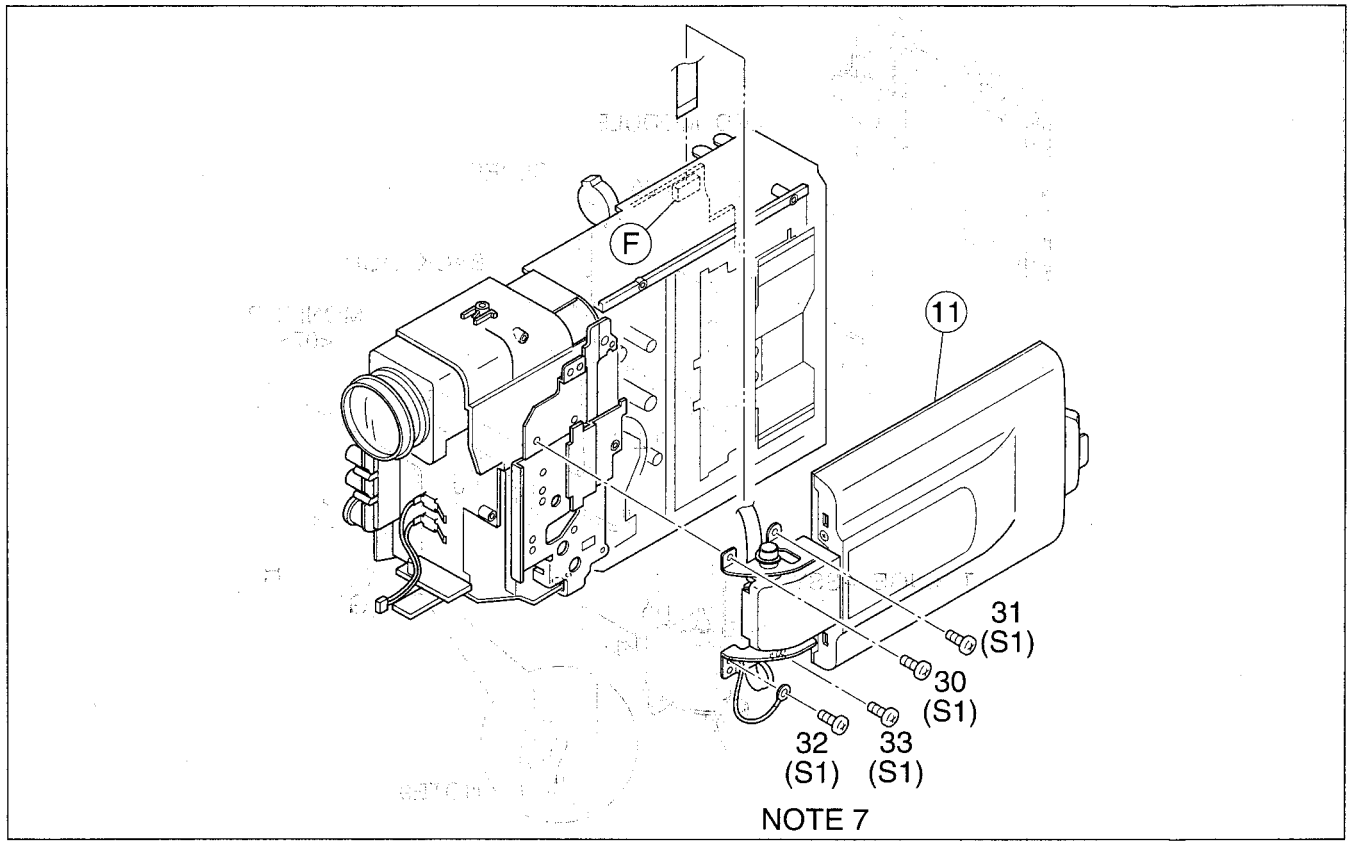


Fig. C9

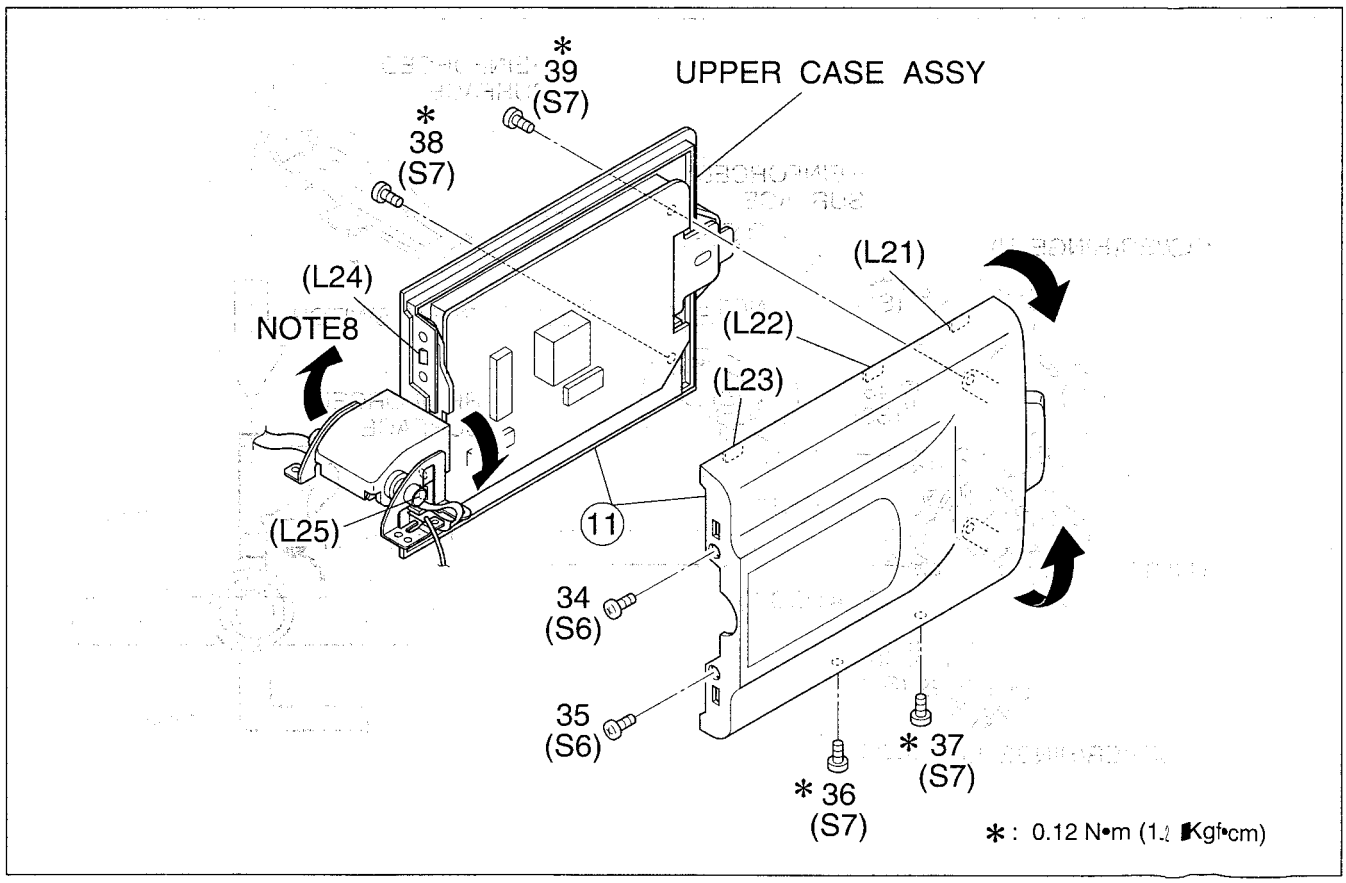


Fig. C10

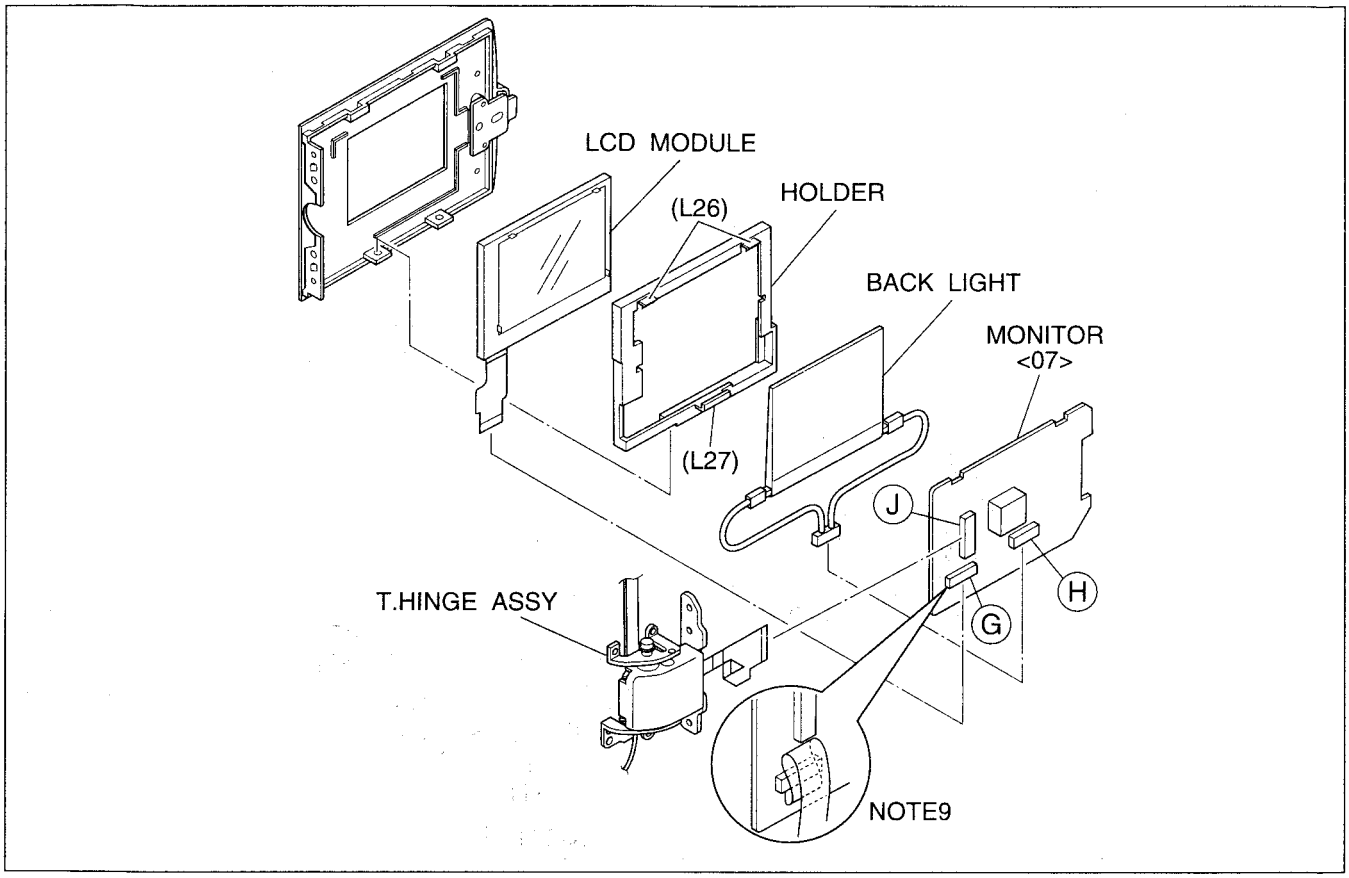


Fig. C11

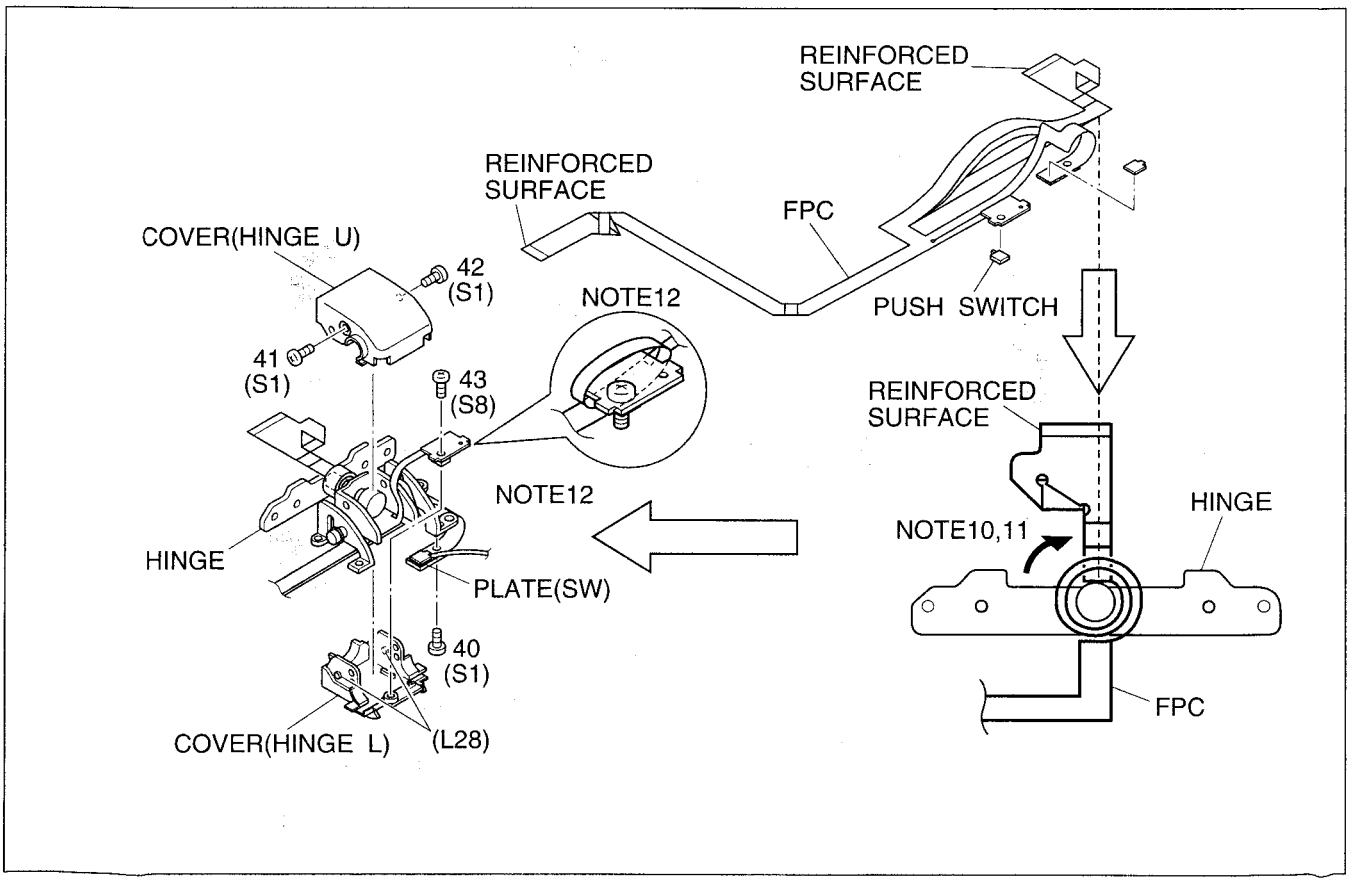


Fig. C12

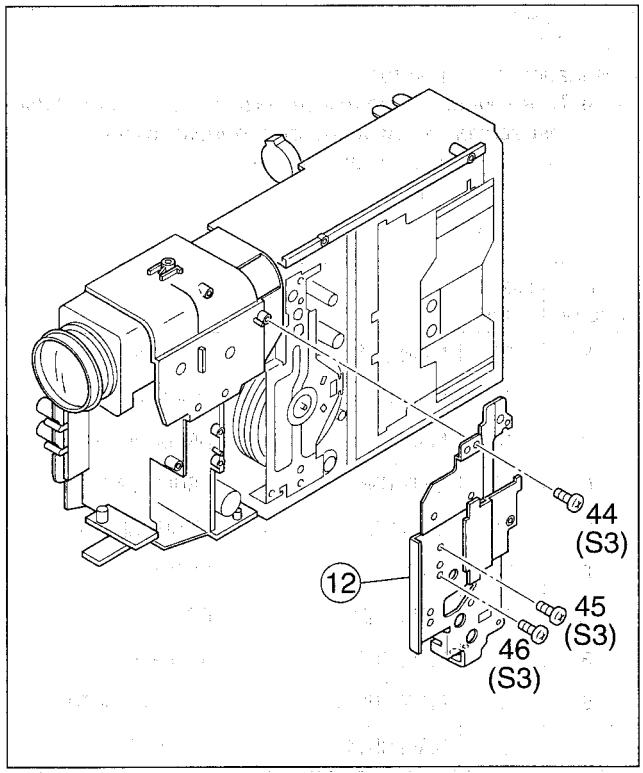


Fig. C13

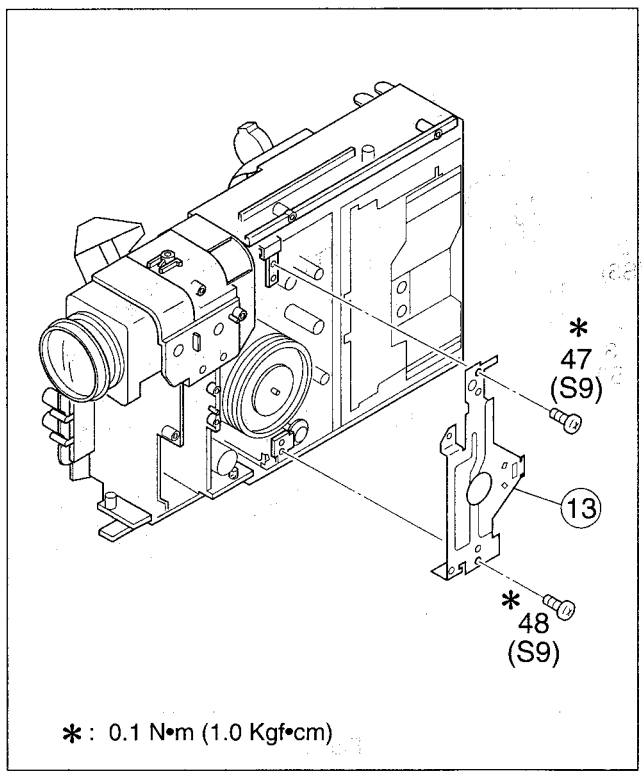


Fig. C14

Reference Notes:

<NOTE 1>
Turn the monitor assembly at a angle of 90° as shown in the figure.

<NOTE 2>
Pay heed to the wire under the top cover not to get it broken.

<NOTE 3>
When removing the LOWER CASE assembly, pay careful attention to the knob of the switch (DC LIGHT) to get it neither damaged nor lost.

<NOTE 4>
When removing the door case together with the cover jig, it is not required to remove the screw of No. 22.

<NOTE 5>
Connect to CN12 for the B/W VF model, or the CN11 for the COLOR VF model.

<NOTE 6>
Destination of connectors

Note: *Three kinds of double-arrows in connection tables respectively show kinds of connector/wires.*

↔ : Board to Board connector
⇔ : Flat wire
↔ : Wire

Con-nector	No. of Pins	Connector		
Ⓐ	5	E.VF (B/W)	↔	MAIN CN12<GR-SXM515>
	20	E.VF(COLOR)	↔	MAIN CN11<GR-SXM915>
Ⓑ	2	LITHIUM	↔	MAIN CN26
Ⓒ	12	OPE (DECK) UNIT	⇔	MAIN CN13
Ⓓ	2	SPEAKER	↔	MAIN CN27
Ⓔ	2	MIC	↔	MAIN CN8
Ⓕ	33	MONITOR ASSEMBLY	⇔	MAIN CN16
Ⓖ	24	MONITOR CN7502	⇔	LCD MODULE
Ⓗ	2	MONITOR CN7503	↔	BACK LIGHT
Ⓙ	30	MONITOR CN7501	⇔	T.HINGE

<NOTE 7>
Fasten the lug wire together with the monitor assembly by the screw (32).

<NOTE 8>
For removing the cover, first turn the hinge at an angle of 90° as shown in the figure and then remove the cover.

<NOTE 9>
Tuck up the (*3-inch) model LCD FPC as shown in the above figure.

*: ONLY FOR GR-SXM915

<NOTE10,11>
(1) The FPC assembly should be winded around the hinge assembly by two and half turns so that the wire to be connected to the mnonitor board assembly is positioned inside.
(2) The upper and lower hinge covers should be mounted so carefully the any wire is not caught into either of the covers.

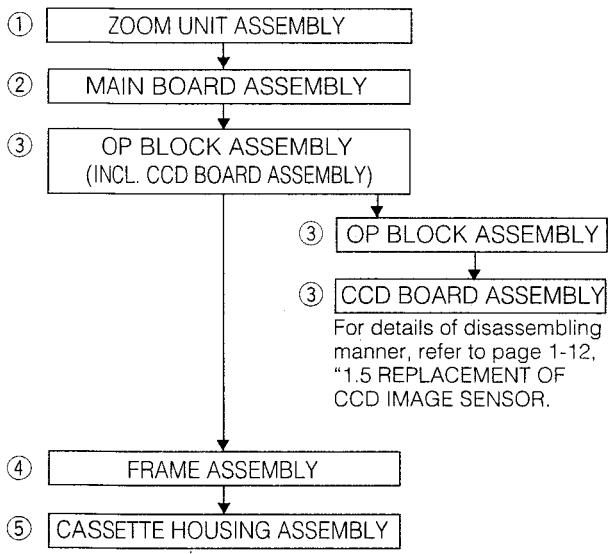
<NOTE 12>
When reassembling, take care of wire arrangement.

1.4 DISASSEMBLING/REASSEMBLING CAMERA SECTION AND DECK SECTION

1.4.1 Flowchart of disassembling

The following flowchart shows the disassembling order of the camera section and deck section. When reassembling the camera section and deck section, follow this flowchart in the reverse order.

<Camera section/Deck section>


① ZOOM UNIT ASSEMBLY
② MAIN BOARD ASSEMBLY
③ OP BLOCK ASSEMBLY (INCL. CCD BOARD ASSEMBLY)
③ OP BLOCK ASSEMBLY
③ CCD BOARD ASSEMBLY
For details of disassembling manner, refer to page 1-12, "1.5 REPLACEMENT OF CCD IMAGE SENSOR.
④ FRAME ASSEMBLY
⑤ CASSETTE HOUSING ASSEMBLY

1.4.2 Disassembly method

STEP /LOC NO.	PART	Fig. No.	REMOVAL	
			*UNLOCK/RELEASE/ UNPLUG/UNCLAMP/ UNSOLDER	NOTE
①	ZOOM UNIT ASSEMBLY	D1	3(S3) *CONNECTOR Ⓚ	<NOTE 1>
②	MAIN BOARD ASSEMBLY	D2	2(S3), (S10) *CONNECTOR Ⓛ,Ⓜ,Ⓝ,Ⓞ Ⓟ,Ⓠ,Ⓡ,Ⓢ,Ⓣ	<NOTE 1>
③	OP BLOCK ASSEMBLY	D3	2(S11) CUSHION (OP)	–
④	FRAME ASSEMBLY	D4	2(S12), (S13)	–
⑤	CASSETTE HOUSING ASSEMBLY	D5	4(S9)	–

List of Abbreviations:
3(S3) = 3 Screws (S3)

Reference Notes:
<NOTE 1>
Destination of connectors

Note: *Three kinds of double-arrows in connection tables respectively show kinds of connector/wires.*

⟷ : Board to Board connector
⟺ : Flat wire
↔ : Wire

Con-nector	No. of Pins	Connector		
Ⓚ	14	MAIN CN18	⟺	ZOOM UNIT
Ⓛ	2	MAIN CN4	↔	LOADING MOTOR
Ⓜ	10	MAIN CN1	⟺	DRUM MOTOR
Ⓝ	11	MAIN CN5	⟺	DRUM HEAD
Ⓞ	14	MAIN CN2	⟺	MECHA SENSOR
Ⓟ	22	MAIN CN15	⟺	OP BLOCK
Ⓠ	14	MAIN CN22	⟺	CCD
Ⓡ	11	MAIN CN7	⟺	A/C HEAD
Ⓢ	18	MAIN CN3	⟺	CAPSTAN MOTOR
Ⓣ	2	MAIN CN14	↔	DC LIGHT

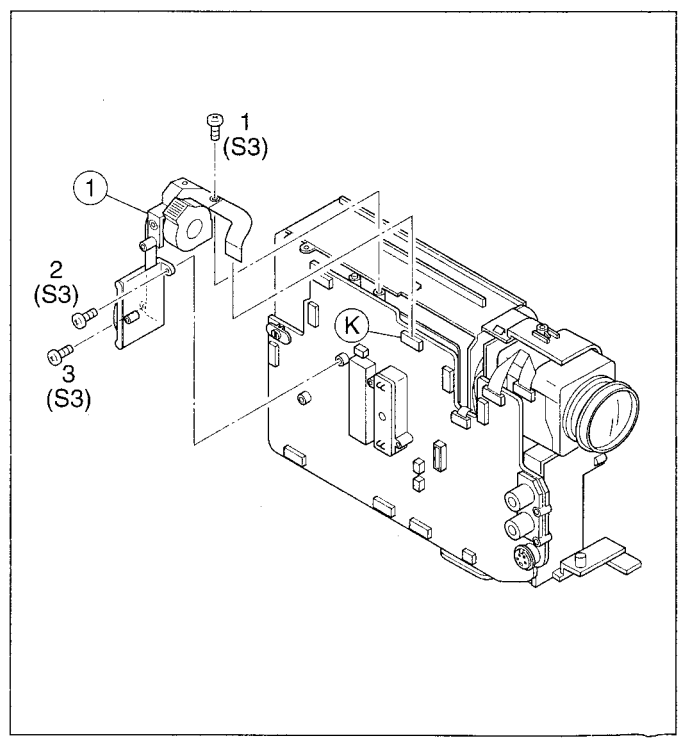


Fig. D1

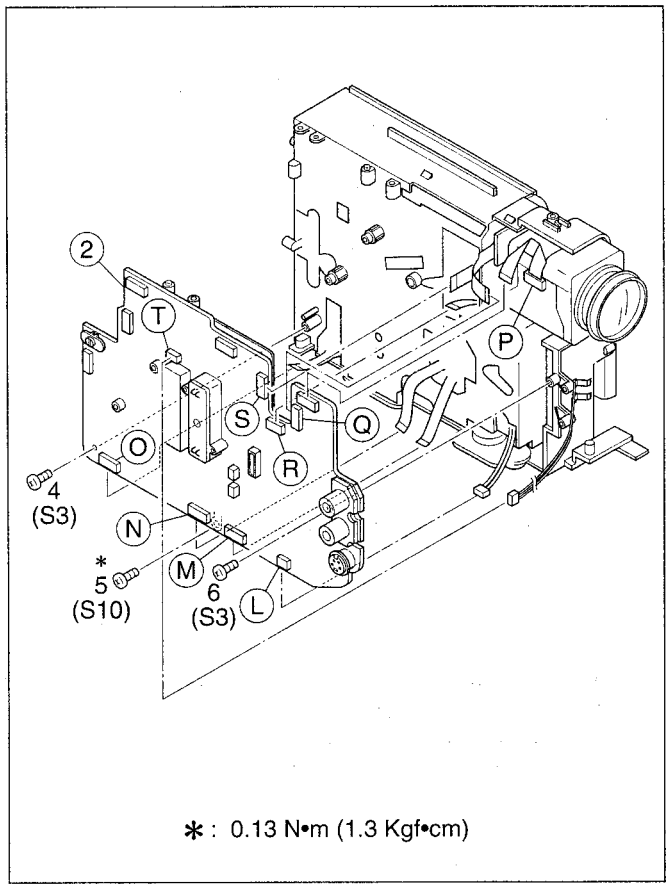


Fig. D2

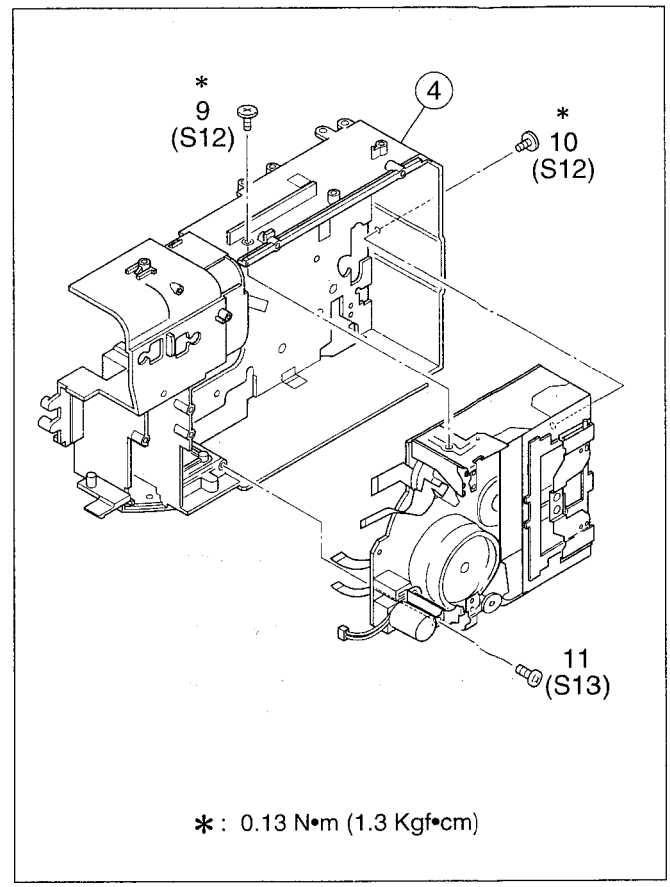


Fig. D4

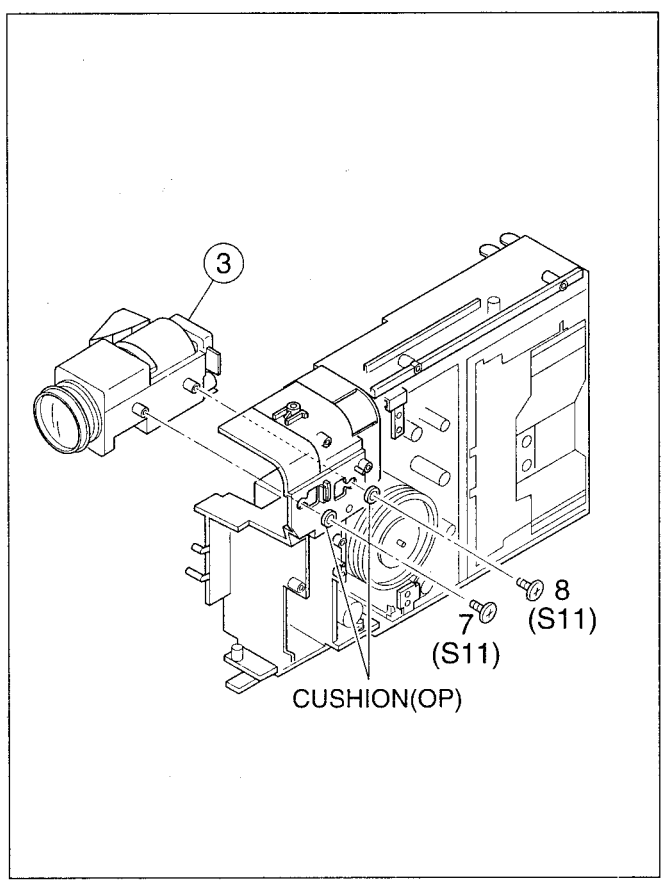


Fig. D3

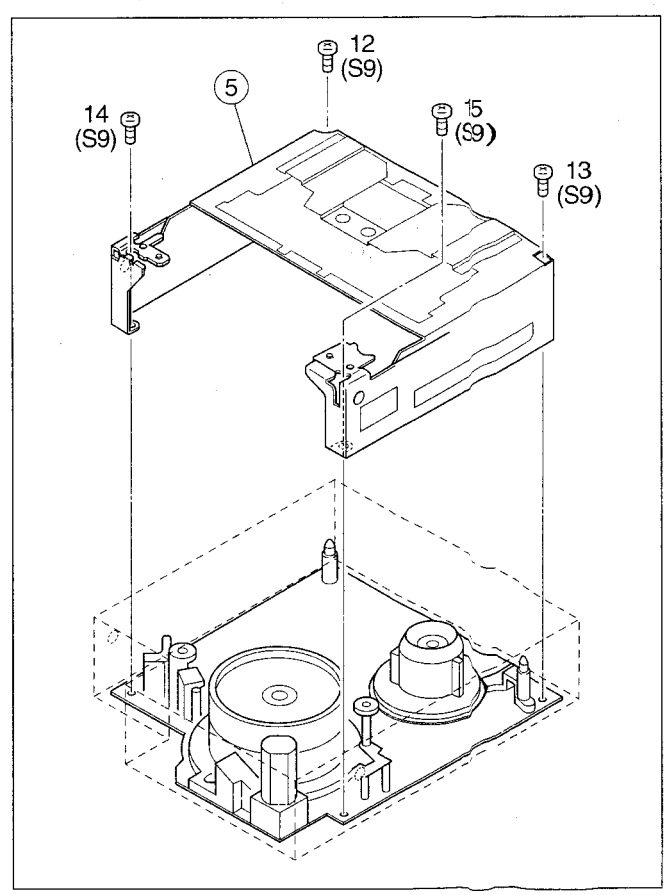


Fig. D5

1.5 REPLACEMENT OF CCD IMAGE SENSOR

Notes:

- *Pay the most careful attention to the transparent glass and optical LPF of the CCD image sensor so a not the soil and damage them. If something is soiled with finger-prints, etc., gently clean it with silicon-processed paper/cloth or chamois.*
- *When the CCD image sensor is shipped from the factory, there are protection seals applied onto the transparent glass. Leave the protector as it is, and take it off just before assembling the CCD image sensor to the OP block.*

1.5.1 Removal of CCD image sensor

1. Remove two screws (1, 2) securing the CCD base assy, and disassemble the CCD spacer, the optical LPF, spacer rubber.

1.5.2 Installation of new CCD image sensor

1. Remove the protection seal from a new CCD image sensor. Next, put the optical LPF, spacer rubber, CCD spacer on the CCD image sensor as they are piled up in this order. At that time, make sure of orientation of each item refering to the following table (see Fig. 1-5-1).

Part Name	Orientation
CCD image sensor	Mark is on the right viewed as indicated by the arrow ⓐ.
Spacer rubber	IC side is horizontal.
Optical LPF	The thicker element next to blue glass is set in the direction of the arrow ⓐ.

2. Fix the CCD base assy to OP block with the two screws (1, 2). At that time, be careful of the orientation.
3. After completion of all P.C. boards to the camera section, observe the monitor to confirm no vignetting caused by the bodytube, rings, lens hood, etc. If no vignetting is observed, it can be said that image's parallel, horizontality and centering are correct.

1.5.3 Replacement of CCD board assy

1. Remove one screw (3).
2. Unsolder at the fourteen points on the CCD board assy.

Note: *1. Remove the screw (3) only when the CCD board assy needs replacement.*
2. When installing a new CCD board assy, carry out the above-mentioned procedure in the reverse order.

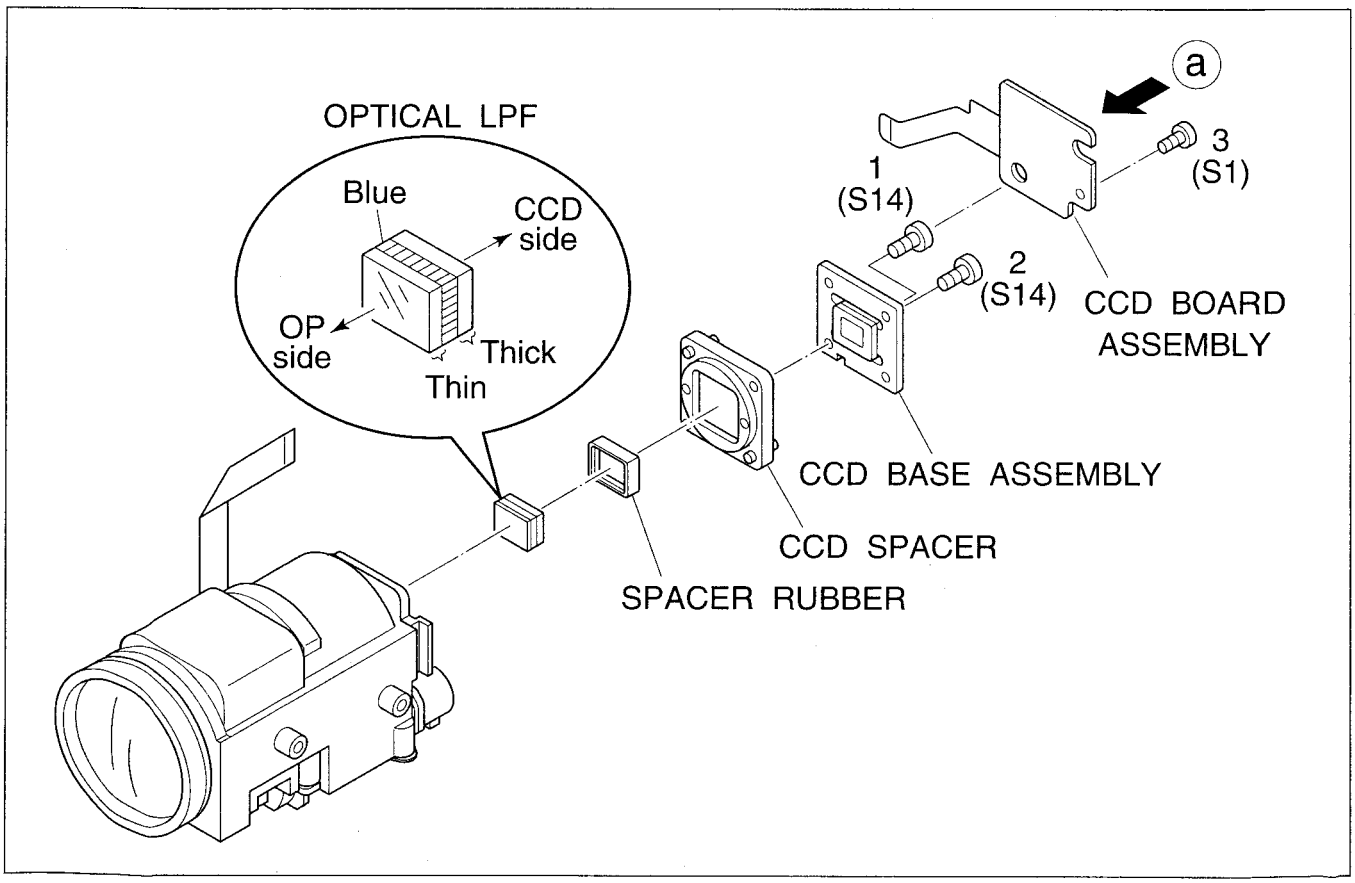


Fig. 1-5-1

1.6 TAKE OUT CASSETTE TAPE

In the event that the set enters the emergency mode as it is loaded with a cassette tape and the cassette tape cannot be ejected with the EJECT button, manually, take it out of the set according to the following procedure.

Note: *If the mechanism comes into the unloading mode as the cassette tape is not held by hand, it results in tape damage.*

1. Disconnect the set from the power source.
2. Remove the cassette cover assembly, COVER (VF), top cover. (See Fig. C1, C2 and C3, Page 1-1, 2, 3, 4 and 5)
3. Connect a jumper wire to each pole of the loading motor as shown by the magnified view ⓑ (Fig. 1-6-1)
4. While holding down the cassette housing by hand, connect the jumper wires to a battery to run the mechanism to the EJECT position four unloading. If this unloading operation is performed as the cassette housing is not held down by hand, the front lid of the cassette may damage the tape when it is ejected.
5. For taking in the slack of the tape, run the mechanism to the EJECT position as the front lid of the cassette is left open, and turn the take-up reel in the forward direction to wind up the tape. After confirming that the tape has completely been wound up and the supply reel is idling, take the cassette tape out of the cassette housing.

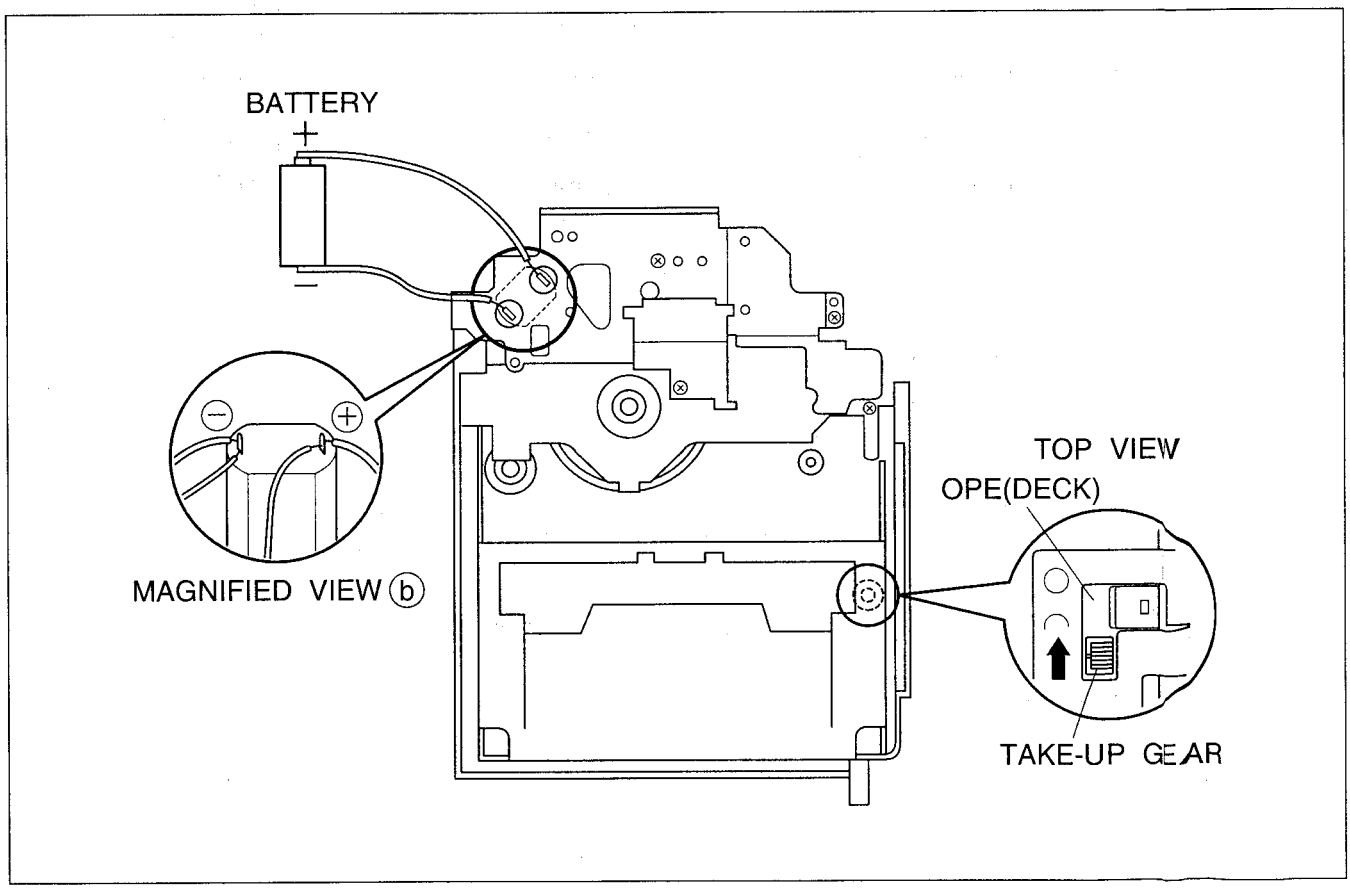


Fig. 1-6-1

1.7 EXTENSION CABLE CONNECTION

Connector	Pins	Connection			Parts Number
①	22	MAIN CN15	⟷	OP BLOCK	YTU94074-22 YTU94077-22
②	14	MAIN CN22	⟷	CCD	YTU94074-14 YTU94077-14
③	11	MAIN CN7	⟷	A/C HEAD	YTU94074-11 YTU94077-11
④	18	MAIN CN3	⟷	CAPSTAN MOTOR	YTU94074-18 YTU94077-18
⑤	14	MAIN CN2	⟷	MECHA SENSOR	YTU94074-14 YTU94077-14
⑥	11	MAIN CN5	⟷	DRUM HEAD	YTU94074-11 YTU94077-11
⑦	10	MAIN CN1	⟷	DRUM MOTOR	YTU94074-10 YTU94077-10
⑧	2	MAIN CN4	⟷	LOADING MOTOR	YUJ40095A-2
⑨	20	MAIN CN11	⟷	E. VF (COLOR)	YTU94074-20 YTU94077-20
⑩	5	MAIN CN12	⟷	E. VF (B/W)	YUJ40095A-5
⑪	12	MAIN CN13	⟷	OPE (DECK) UNIT	YTU94074-12 YTU94077-12
⑫	14	MAIN CN18	⟷	ZOOM UNIT	YTU94074-14 YTU94077-14

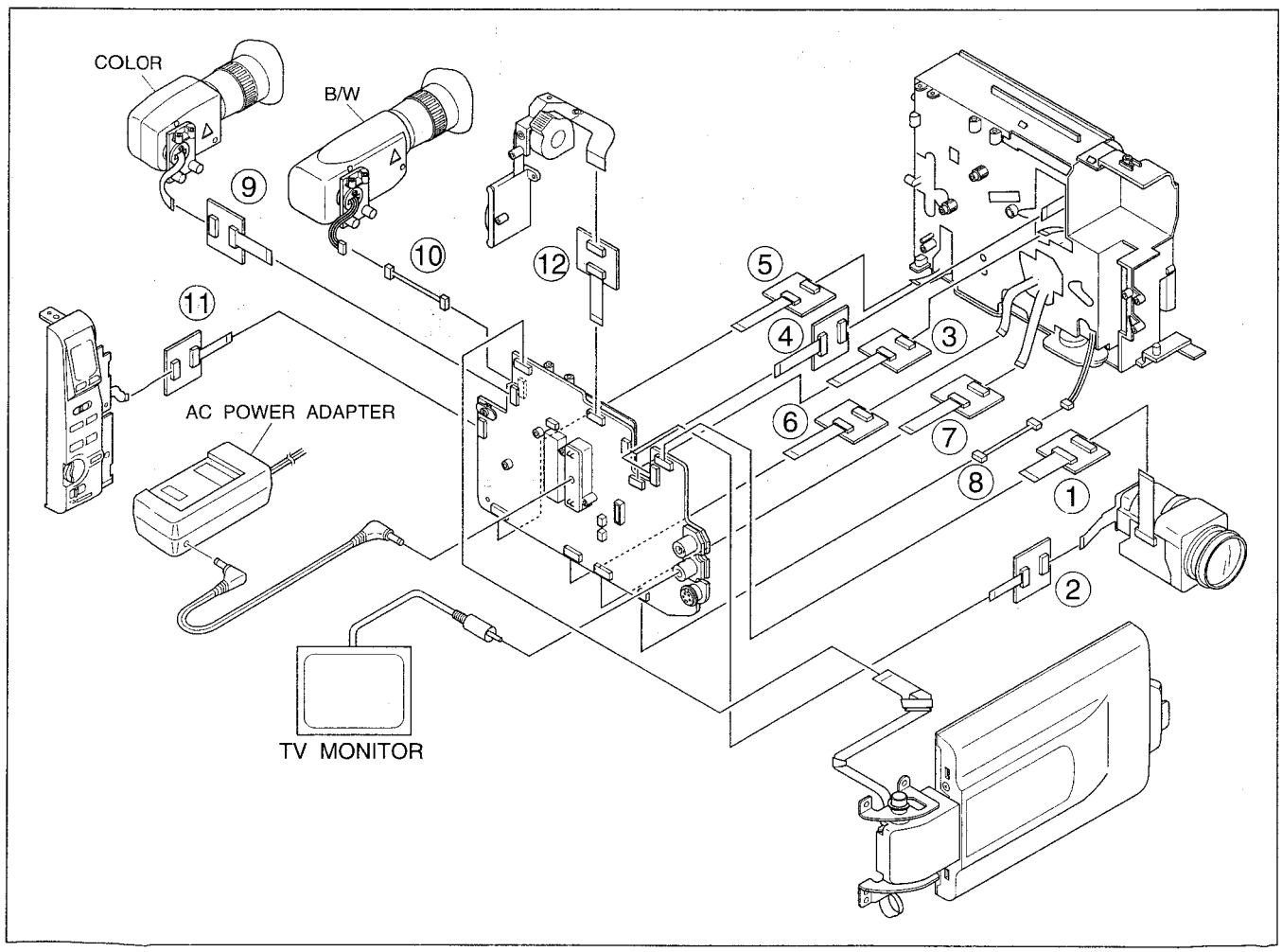


Fig. 1-7-1

1.8 EMERGENCY DISPLAY

Whenever some abnormal signal is supplied to mechacon CPU, an error number (E 04, for example) displayed in the electronic view finder and LCD screen.

- In an emergency mode, all operations except turning on/off the POWER switch are ineffectual.

E. VF/LCD	Symptom	Mode when observed	Resulting mode
E07	Short circuit of capstan MDA	Power ON	Power OFF
E06	CAPSTAN FG input absent	EDIT	Power OFF
E04	DRUM FF input absent	DRUM rotation	Power OFF
E03	SUPPLY REEL FG input absent	REC, PLAY, SEARCH, FF	UNLOADING → Power OFF
E02	Mode control motor rotates for more than 10 sec without shift to next mode.	UNLOADING	Power OFF
E01	Mode control motor rotates for more than 10 sec without shift to next mode.	LOADING	Power OFF
E00	Overtime the programming transaction	REC, PLAY	Power OFF

1.9 DEMONSTRATION MODE

This model has the DEMONSTRATION mode.

1) How to set the DEMONSTRATION mode.
The camera can be entered into the DEMONSTRATION mode by setting on the DISPLAY screen appearing on the LCD monitor (or in the viewfinder).

When entering the camera into the DEMONSTRATION mode, pay heed to the following matters.

No cassette is set in the camcorder or a cassette is set in the camcorder but it is protected from recording.

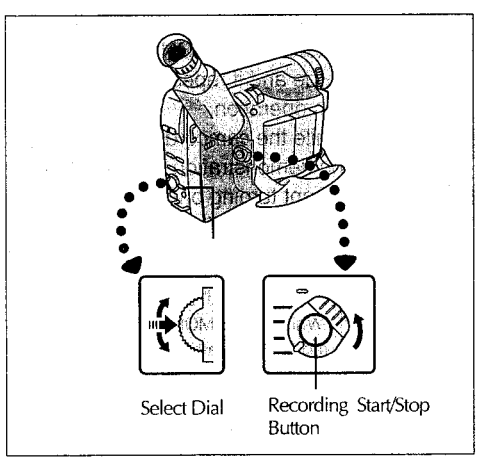
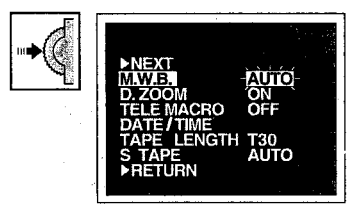


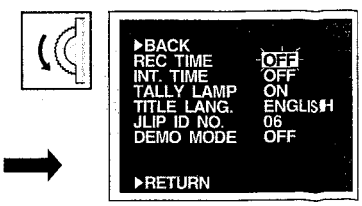
Fig. 1-9-1

1. Set the POWER switch to turn on the "PRO".
   Assume that the P.AE BUTTOM is set at "FG".
   Press the MENU BUTTOM once.
   The first page of the DISPLAY appears on the LCD monitor (or in the viewfinder).



Display 1

2. Turn the SELECT DIAL in the direction of the arrow to set the cursor at "NEXT".
   The second page of the DISPLAY appears on the LCD monitor (or in the viewfinder).



Display 2

next page

<Flow chart>

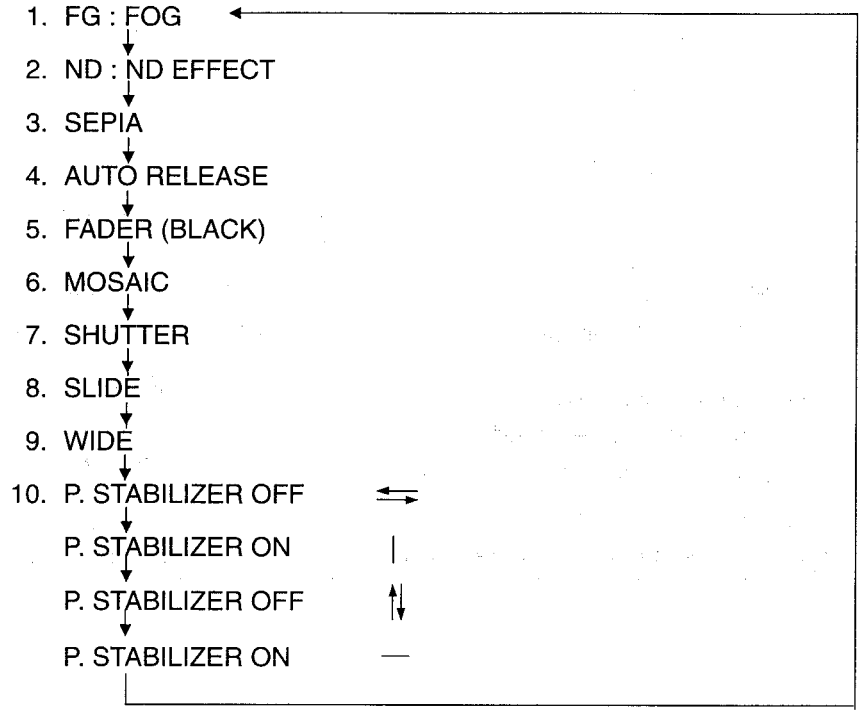
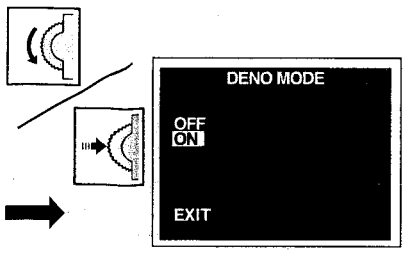


Fig. 1-9-2

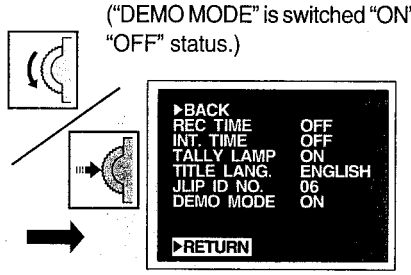
2) How to cancel the DEMONSTRATION mode.
To cancel the DEMONSTRATION mode, turn the POWER switch off ("POWER OFF").

3. Turn the SELECT DIAL in the direction of the arrow to set the cursor at "DEMO MODE". Then, press the SELECT DIAL once. The third page of the DEMO MODE appears on the LCD monitor (or in the viewfinder).



Display 3

4. Turn the SELECT DIAL in the direction of the arrow to set the cursor at "ON". Then, press the SELECT DIAL once.
The fourth page of the DISPLAY appears on the LCD monitor (or in the viewfinder).
("DEMO MODE" is switched "ON" from "OFF" status.)



Display 4

5. Press the SELECT DIAL once. The camcorder automatically enters the DEMONSTRATION mode and it repeats demonstration operation.
While the camcorder is performing demonstration, all operations except turning on/off the POWER switch are ineffectual.

Refer to Fig. 1-9-2.
While the DEMONSTRATION mode is activated, a word of "DEMONSTRATION" is appearing on the screen scrolling from right to left.

SECTION 2
MECHANISM ADJUSTMENT

2.1 SERVICE CAUTIONS

2.1.1 Precautions

1. Before disassembling/re-assembling the set as well as soldering parts, make sure to disconnect the power cable.
2. When disconnecting/connecting connectors, pay enough attention to wiring not to damage it.
3. When installing parts, be careful not to do with other parts as well as not to damage others. (Pay the most careful attention to the upper drum assy and tape transport mechanism.)

2.1.2 How to read the disassembly and assembly (For Mechanism Parts)

①: Order of steps in Procedure
When reassembling, perform the step(s) in the reverse order. These numbers are also used as the identification (location) No. of parts Figures.

②: Part to be removed or installed.

③: Location of part.
T = Top
B = Bottom

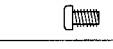
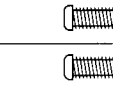
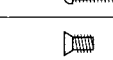
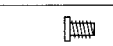
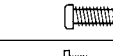
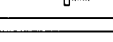
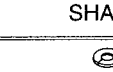
④: Fig. No. showing Procedure or Part Location.
M = Mechanism

⑤: Identification of part to be removed, unhooked, unlocked, released, unplugged, unclamped or unsoldered.
P = Spring
W = Washer
S = Screw
* = Unhook, unlock, release, unplug or unsolder.

⑥: Adjustment information for installation.
(+) = Refer to Exploded Views for Lubrication information.

2.1.3 Main screws and washers to deal with disassembly/assembly

Table 2-1-1 lists screws and washers by their symbols which correspond to those shown in figures of this section "Disassemby and Assembly".

SYMBOL OF SCREW	SHAPE	PART NUMBER
S1		YQ44457
S2		YQ44457-2
S3		SPSN1750Z
S4		YQ44304
S5		YQ44460
S6		YQ44457-3
S7		SPSH1740Z
S8		YQ44457-5
S9		QYSLSP2030D

SYMBOL OF WASHER	SHAPE	PART NUMBER
W1		PQM30017-27
W2		Q03093-835
W3		PQM30017-25
W4		LY30015-001A

Table 2-1-1

(For Mechanism Parts)

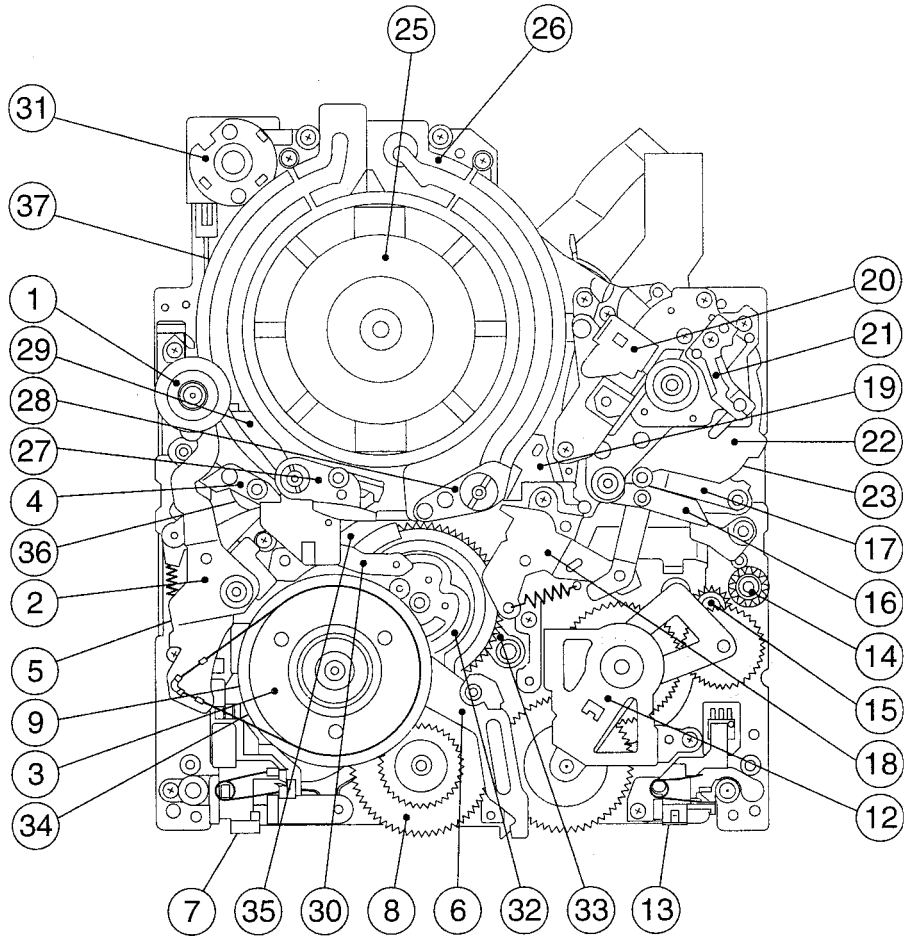
STEP/LOC. No.	PART		Fig. No.	REMOVAL *UNHOOK/UNLOCK /RELEASE/UNPLUG /UNSOLDER	INSTALLATION ADJUSTMENT CONDITION NOTE
①	ROLLER BASE ASSEMBLY	T	M1	(S1)	—
②	TENSION ARM ASSEMBLY	T	M1	(P1), (W1)	—
③	REEL DISC (SUP)	T	M1	(W1), (W2)	—
④	SLANT ARM ASSEMBLY	T	M1	(W1)	—
⑤	CANCEL LEVER ASSEMBLY	T	M2	(W1)	—
⑥	EJECT LEVER ASSEMBLY	T	M2	(W1)	—
⑦	CASSETTE GUIDE (L) ASSEMBLY	T	M2	(S1)	—

2.2 DISASSEMBLY/ASSEMBLY OF MECHANISM PARTS

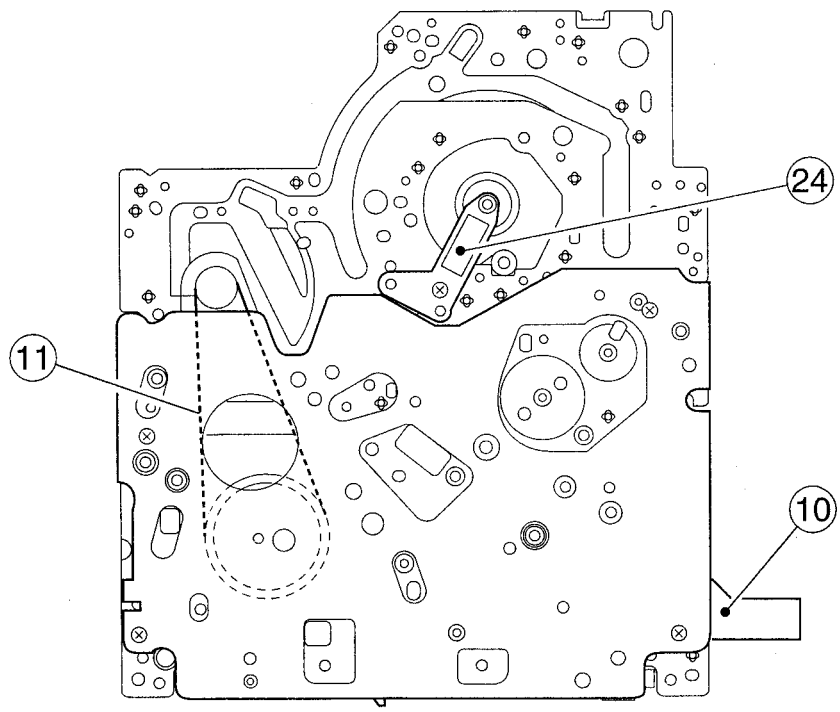
This procedure starts with the condition that the cabinet parts and deck parts. Also, all the following procedures for adjustment and parts replacement should be performed in STOP mode. When reassembling, perform the step(s) in the reverse order.

STEP/LOC. No.	PART		Fig. No.	REMOVAL *UNHOOK/UNLOCK /RELEASE/UNPLUG /UNSOLDER	INSTALLATION ADJUSTMENT CONDITION NOTE
①	ROLLER BASE ASSEMBLY	T	M1	(S1)	–
②	TENSION ARM ASSEMBLY	T	M1	(P1), (W1)	–
③	REEL DISC (SUP)	T	M1	(W1), (W2)	–
④	SLANT ARM ASSEMBLY	T	M1	(W1)	–
⑤	CANCEL LEVER ASSEMBLY	T	M2	(W1)	–
⑥	EJECT LEVER ASSEMBLY	T	M2	(W1)	–
⑦	CASSETTE GUIDE (L) ASSEMBLY	T	M2	(S1)	–
⑧	SUPPLY CLUTCH ASSEMBLY	T	M2	(W1)	–
⑨	WHEEL GEAR	T	M2	(W1)	See, Adjustment procedure for Section 2.3
⑩	ROTARY ENCODER	B	M3	4(S2)	–
⑪	TIMING BELT	B	M3	–	–
⑫	CENTER PULLEY UNIT	T/B	M3	2(S2)	–
⑬	CASSETTE GUIDE (R) ASSEMBLY	T	M3	(S1), (P2)	–
⑭	TU GEAR	T	M3	(W1)	–
⑮	BRAKE SUB GEAR	T	M3	(W1)	–
⑯	P.R ARM ASSEMBLY	T	M3	(W3)	–
⑰	TU GUIDE ARM ASSEMBLY	T	M3	(W1)	–
⑱	LINK ARM ASSEMBLY	T	M4	(W3)	–
⑲	LED GUIDE	T	M4	(S1)	–
⑳	A/C HEAD UNIT	T	M4	2(S3)	–
㉑	SLANT POLE BASE ASSEMBLY	T	M5	(S4)	–
㉒	CAP MOTOR ASSEMBLY	T	M5	3(S4)	–
㉓	MOTOR BASE	T	M5	2(S1), (S5)	–
㉔	BRUSH	B	M6	(S6)	–
㉕	DRUM FINAL	T/B	M6	2(S1), (S7), *CATCHER	–
㉖	GUIDE RAIL	T	M6	8(S8)	–
㉗	POLE BASE (SUP)	T	M6	–	–
㉘	POLE BASE (TU)	T	M6	–	–
㉙	COVER PLATE	T	M7	–	–
㉚	DRIVE LEVER ASSEMBLY	T	M7	–	–
㉛	MOTOR BRACKET ASSEMBLY	T	M7	3(S1)	–
㉜	CONTROL CAM	T	M8	(W4)	See, Adjustment procedure for Section 2.3
㉝	LINK LEVER	T	M8	–	–
㉞	MIDDLE GEAR	T	M8	–	–
㉟	LOADING GEAR(T) ASSEMBLY	T	M8	(W1)	See, Adjustment procedure for Section 2.3
㊱	LOADING GEAR(S) ASSEMBLY	T	M8	(W1)	–
㊲	LOADING RING ASSEMBLY	T	M8	4(S1)	See, Adjustment procedure for Section 2.3

TOP VIEW



BOTTOM VIEW



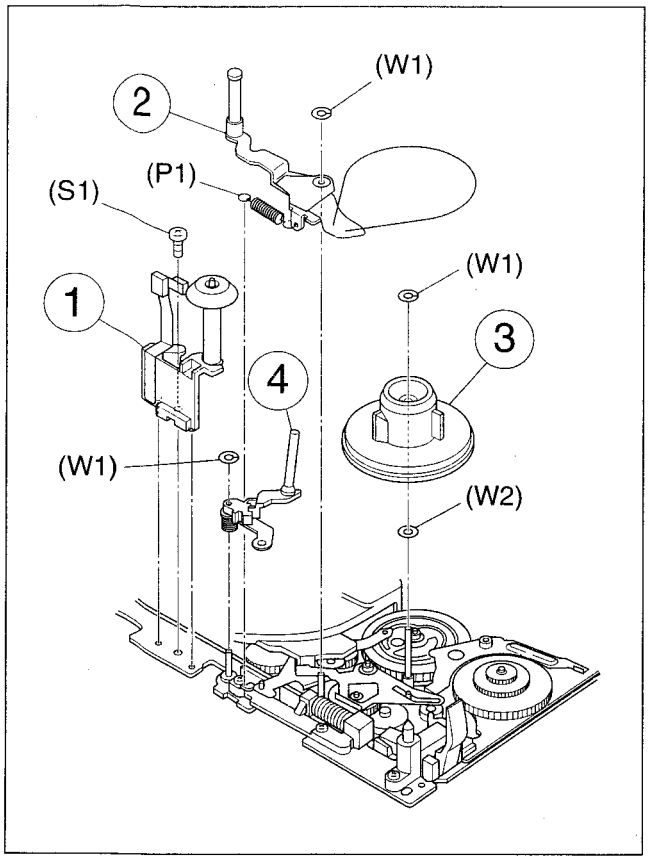


Fig. M1

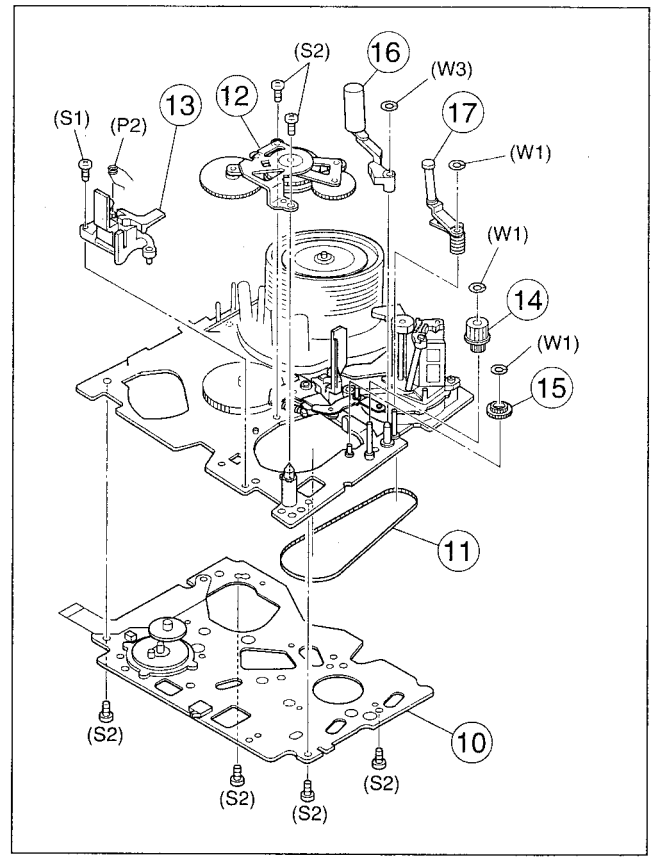


Fig. M3

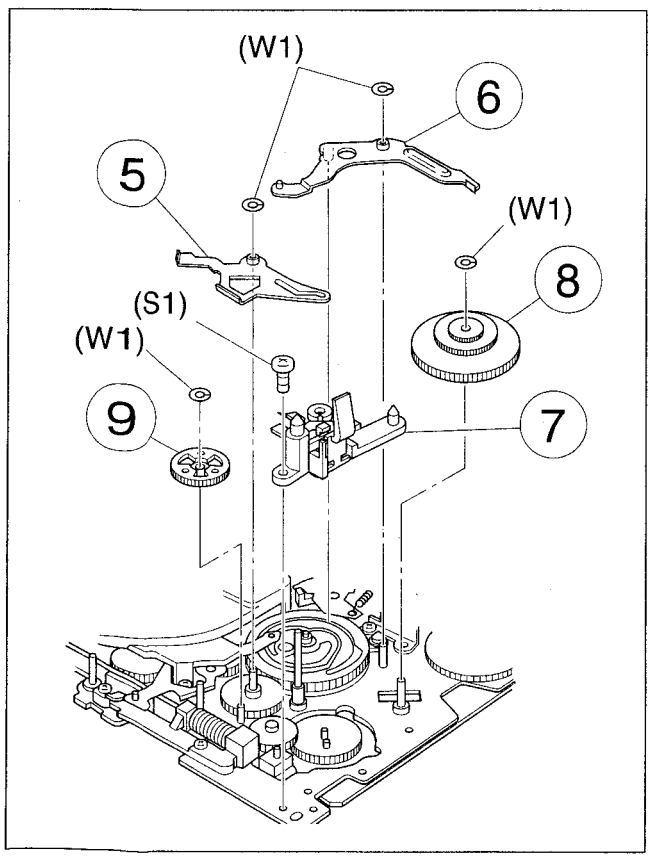


Fig. M2

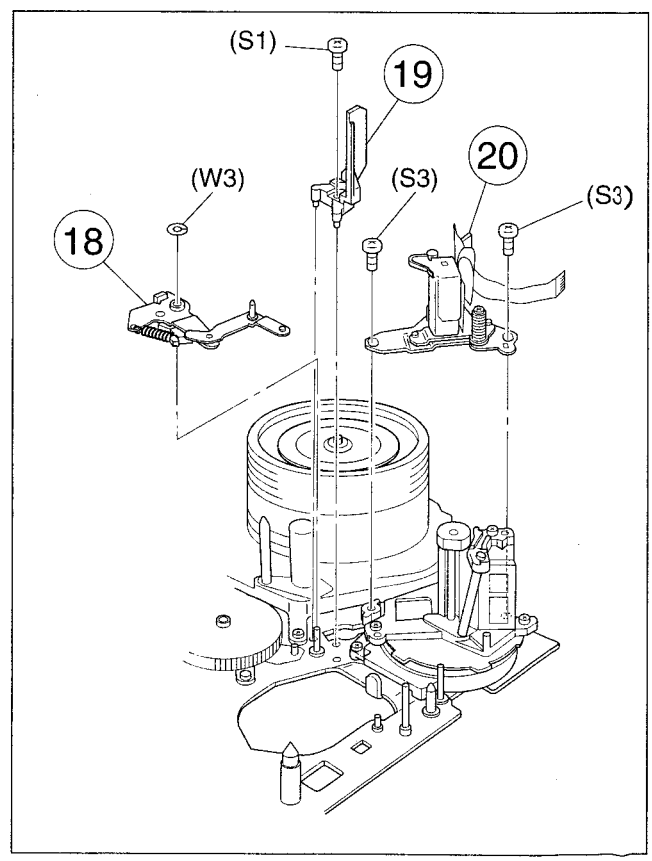


Fig. M4

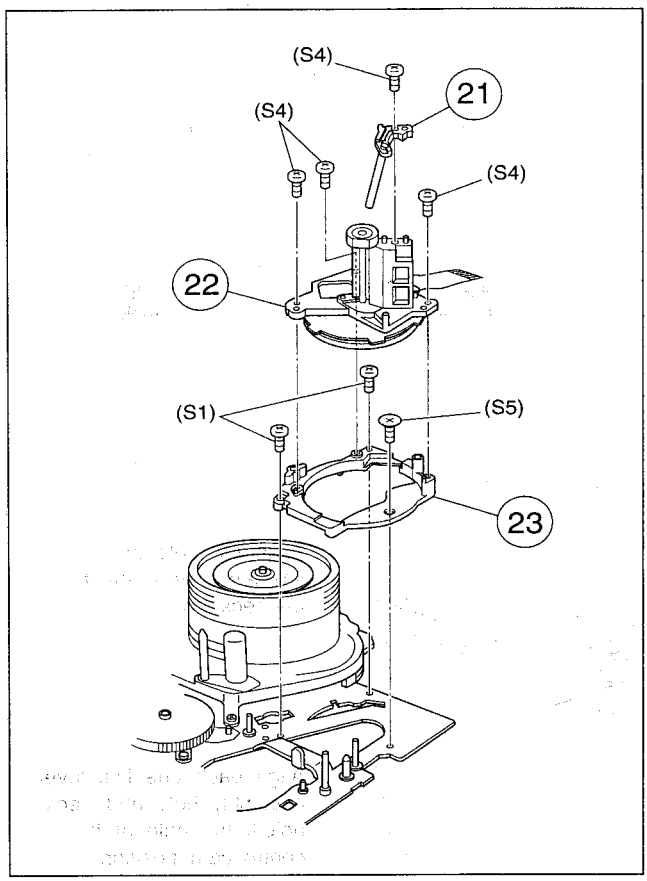


Fig. M5

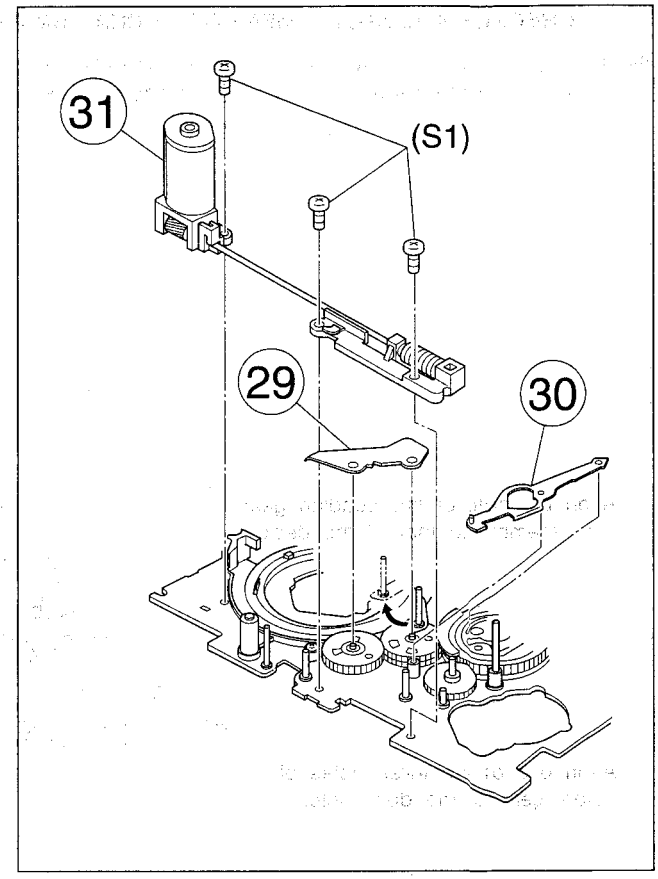


Fig. M7

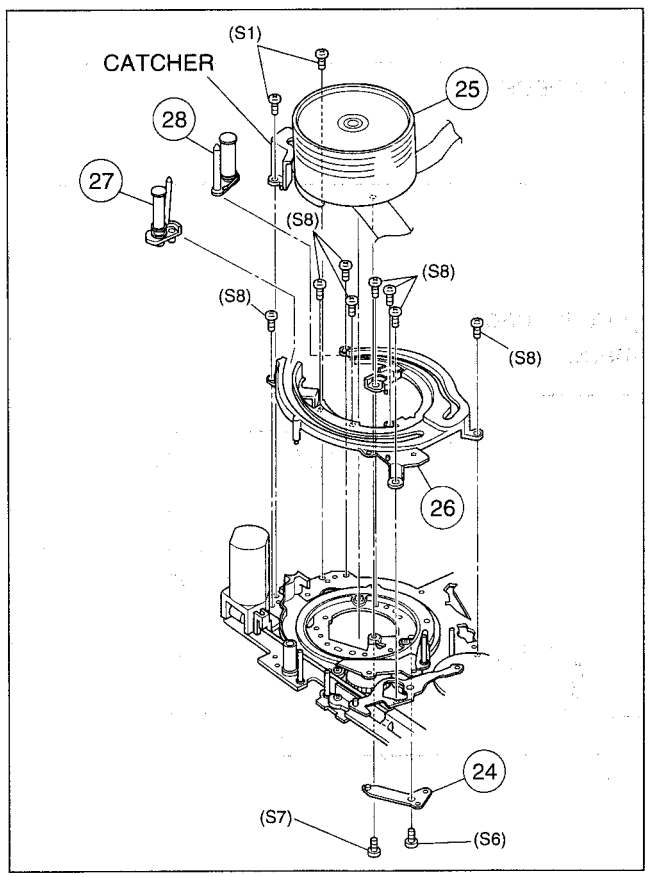


Fig. M6

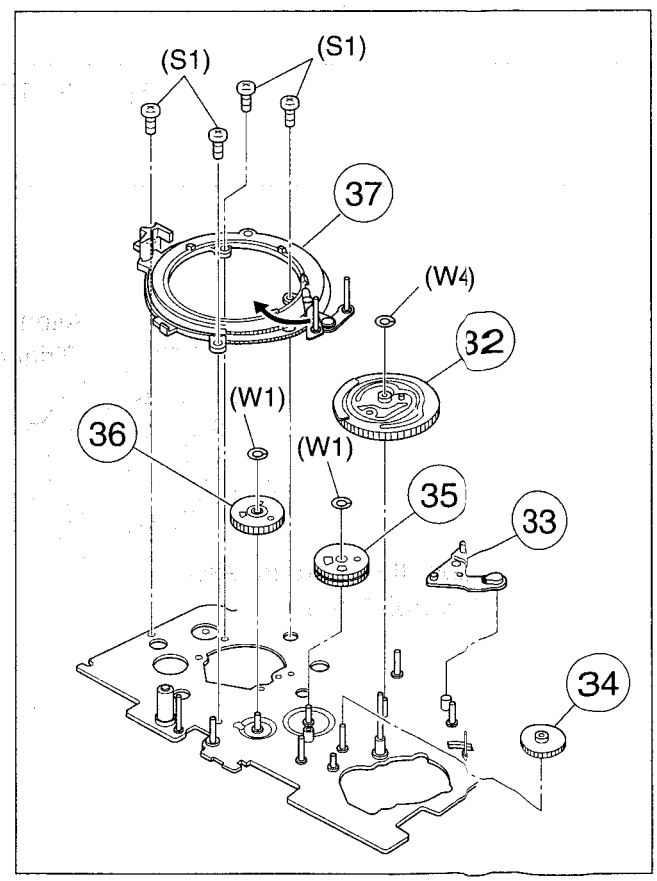


Fig. M8

2.3 CHECKUP AND ADJUSTMENT OF MECHANISM PHASE

Note: *Pay careful attention to the installing order and phase of mechanism parts of the loading system.*

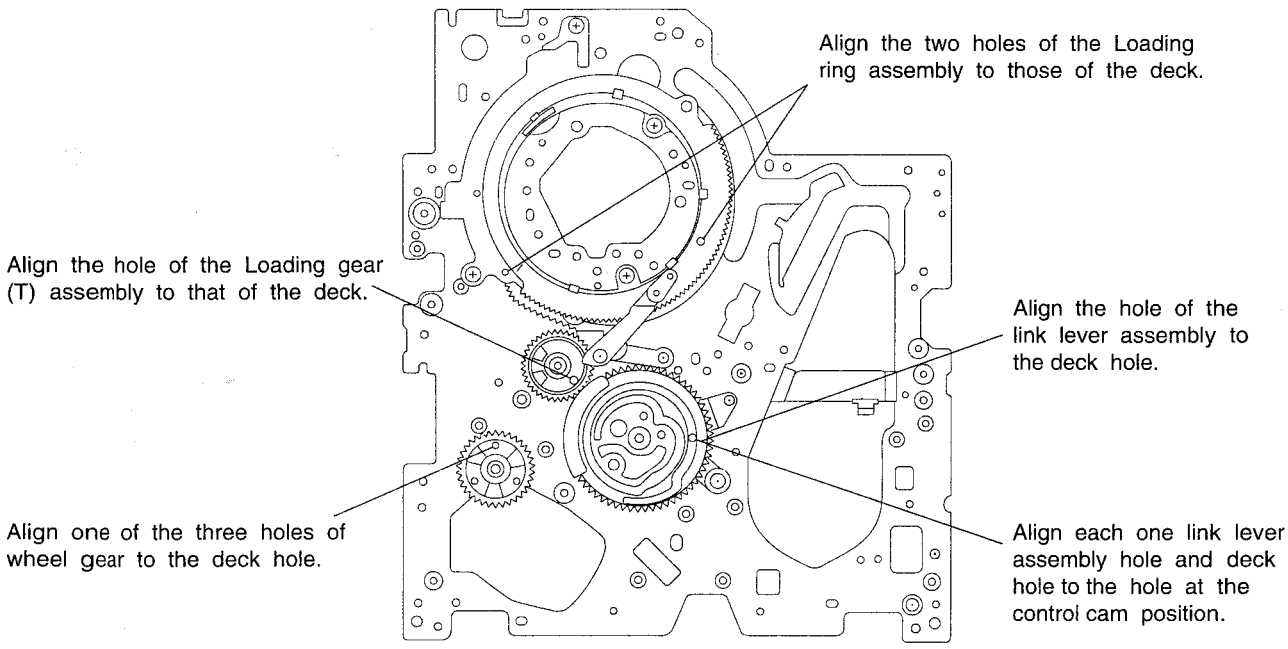

Align the two holes of the Loading ring assembly to those of the deck.
Align the hole of the Loading gear (T) assembly to that of the deck.
Align the hole of the link lever assembly to the deck hole.
Align one of the three holes of wheel gear to the deck hole.
Align each one link lever assembly hole and deck hole to the hole at the control cam position.

Fig. 2-3-1 TOP OF MAIN DECK

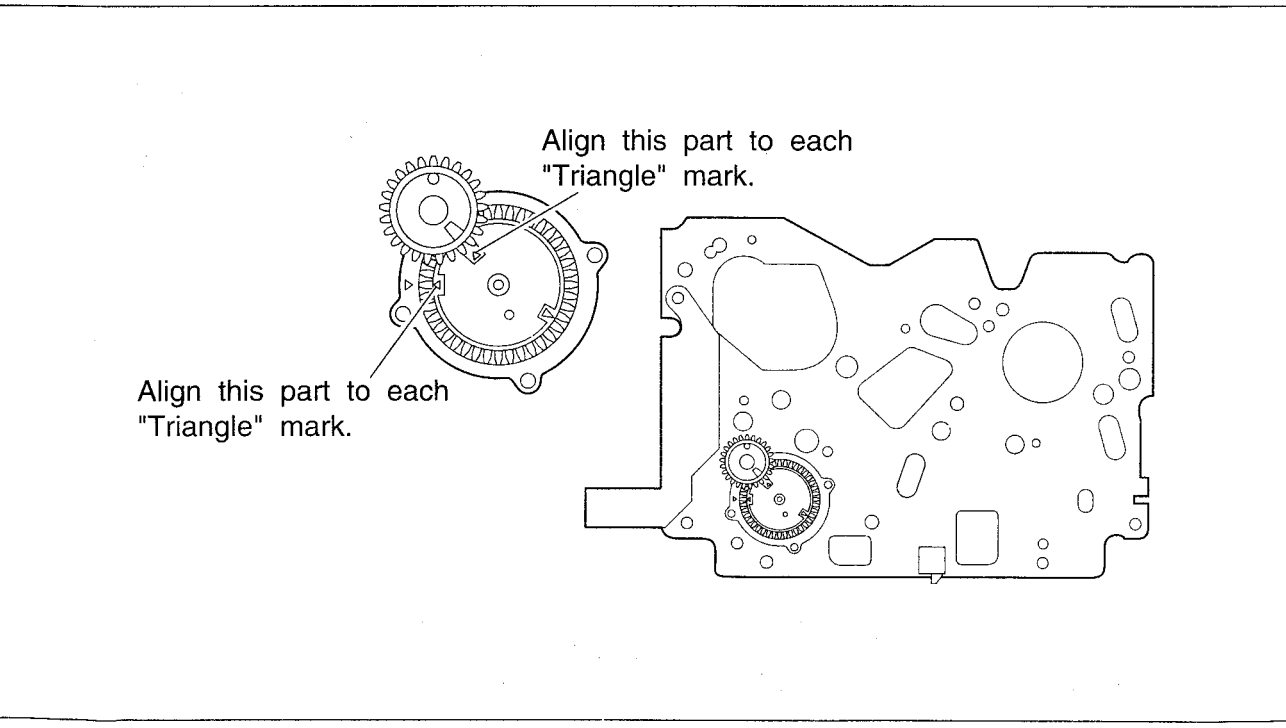


Fig. 2-3-2 ROTARY ENCODER

2.4 TAPE TRANSPORT ADJUSTMENT

In most cases the deck section is in need electrical adjustment, it results from replacement of worm mechanical parts or video heads. In the event of malfunction with electrical circuits, troubleshouting with the aid of proper test instruments most be done first, and then commence necessary repair, replacement and adjustment, etc.

2.4.1 Required adjustment tools

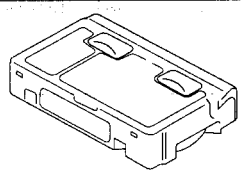
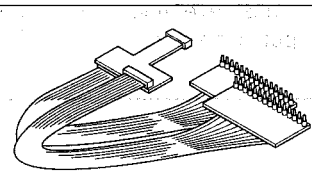
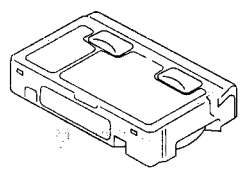
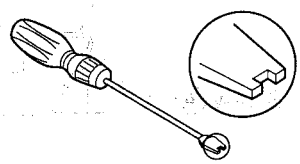
Alignment tape for SP/EP interchangeability MHP-C: SP/MHP-LC: EP	Jig connector cable YTU93082C
	
Cassette torque meter PUJ50431-2	Roller driver PTU94002-2
	

Table 2-4-1

2.4.2 Back tension

1. Set a cassette torque meter onto the deck and measure the back tension in standard REC mode to confirm that the back tension is 9.5 – 17.5 gf•cm.
2. If not, replace the tension band.
   When the value widely fluctuates in the measurement, replace the supply reel disk.
3. With the cassette torque meter, confirm that the play torque is 15 – 25 gf•cm.
   If necessary, replace the center pully unit.

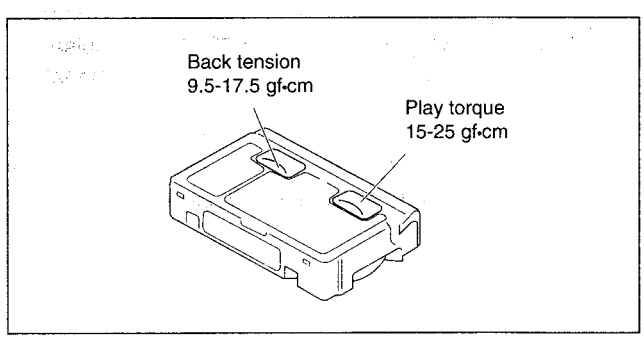


Fig. 2-4-1 Cassette torque meter

2.4.3 Tape pattern

1. Remove the COVER (JIG) and remove the LOWER CASE assembly as shwon on Fig. C5 (Page 1-5).
2. Connect the JIG CONNECTOR CABLE (YTU93082C) to CN25 on the MAIN board as shwon on Fig. 2-6-1 (Page 2-10).
3. Observe signal at pin 5 of CN1 (V. TP FM) with external trigger from pin 8 of CN1 (V. FF) on the patch cord.
4. Playback the SP stairstep signal of the alignment tape, and maximize the FM waveform by the tracking button.
5. Set the tracking control to the center position by simultaneously pressing the tracking (-) and (+) buttons and maximize the FM waveform by the tracking button.
6. If the observed FM waveform is not flat, adjust the height of the supply of take-up guide roller with the roller driver.

   Note: *To prevent the tape from damage, turn the guide rollers slowly.*

7. By operating the tracking button (both in + and – directions) in the manual tracking mode, vary the output level of the FM waveform from maximum to minimum and vice versa to confirm that the waveform varies nearly in a flat shape.
8. When the FM waveform breaks in the level varying process, subtly adjust the height of guide rollers at every breaking point so that the waveform varies as flat as possible.
   Repeat the above steps 6. and 7. several times to confirm that the waveform is flat as a whole.
9. Play the EP stair stepsignal of alignment tape and adjust the tracking control to maximize the FM waveform, confirm that FM waveform variation is always flat.
10. Record the signal and play it back in both of the SP and EP modes, and confirm that the FM waveform is flat in both modes.

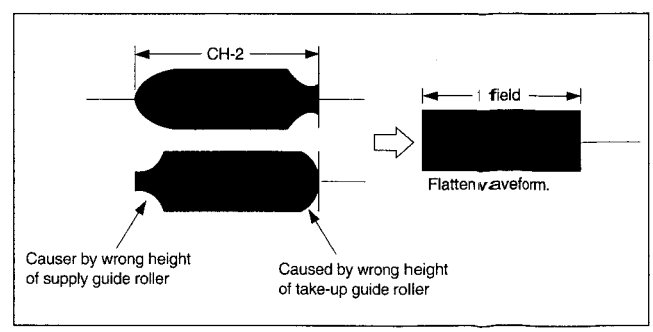


Fig. 2-4-2 FM waveform-1

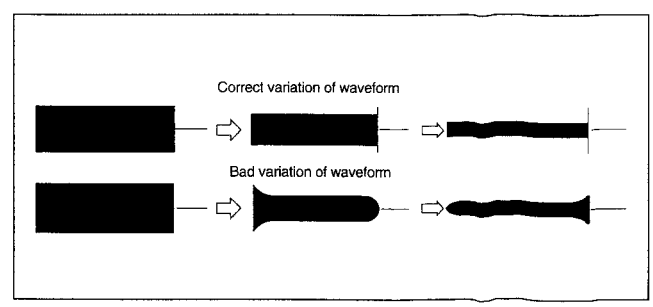


Fig. 2-4-3 FM waveform-2

11. Through the above steps, confirm that there occur no wrinkling and damage in the tape around the pinch roller and TU guide pole whenever the deck is in operation of Loading/Unloading, Search Rewind and at mode change from Search Rewind to play mode. If wrinkling or damage in the tape occurs around the TU guide pole, adjust the angle (slant) of the A/C head to the tape. So that the tape normally runs along the lower flange of the guide pole.

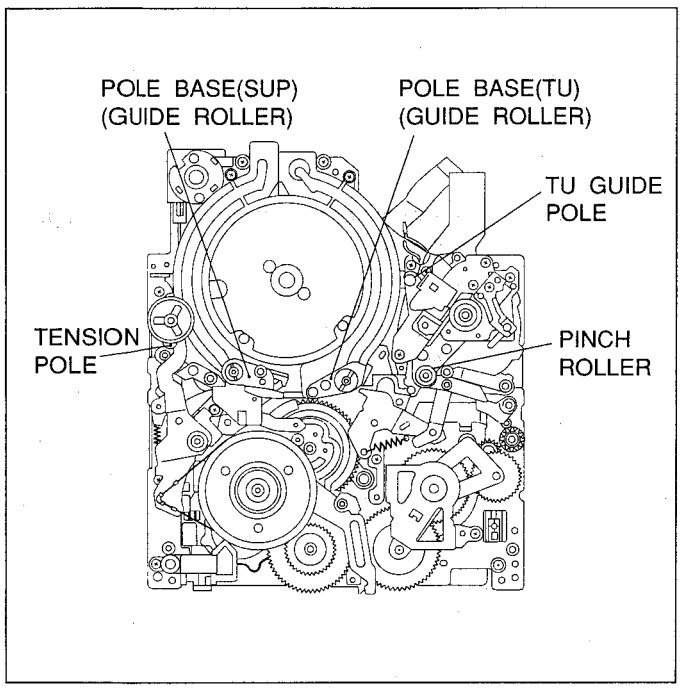


Fig. 2-4-4 Tape transport system

2.4.4 A/CTL head height & azimuth

1. Connect the JIG CONNECTOR CABLE (YTU93082C) to CN25 on the MAIN board.
2. Connect the channel-1 scope probe to the audio output and connect the channel-2 scope probe to CN1 pin 10 on the patch cord.
3. Playback the SP 7 kHz segment of the alignment tape.
4. Set the tracking to its center range by pressing the (+) and (–) tracking controls simultaneously.
5. Adjust screws Ⓐ, Ⓑ and Ⓒ approximately 45 degrees in the same direction to obtain maximum audio output and CTL signal levels.
6. As a final fine adjustment, adjust screw Ⓑ for minimum signal level fluctuation and screw Ⓒ for maximum output signal level.

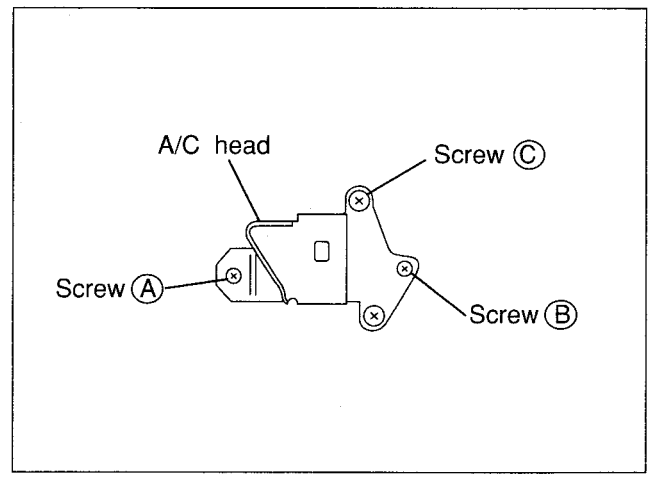


Fig. 2-4-5 A/C head

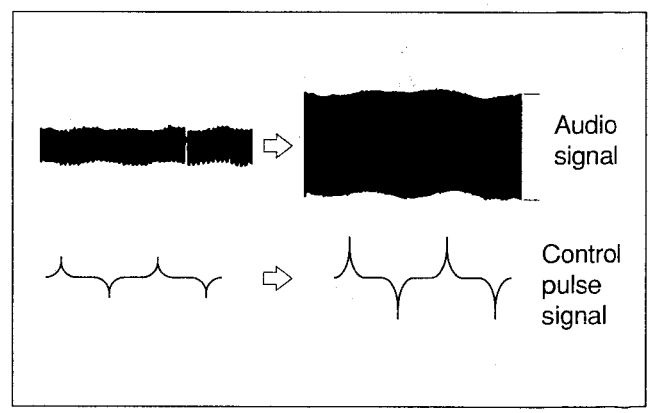


Fig. 2-4-6 Audio and CTL signal

2.4.5 Phase of control head (X value)

1. Connect the JIG CONNECTOR CABLE (YTU93082C) to CN25 on the MAIN board.
2. Play back the SP stairstep signal of the alignment tape and observe signal at pin 5 of CN1 (V.TP FM) with external trigger from pin 8 of CN1 (V.FF) on the patch cord.
3. Operate the tracking button in the center and manual tracking mode by pressing the tracking (+) and (–) buttons and confirm that the FM output level is maximum at the center position as shown in Fig. 2-4-8.
4. If necessary, slightly loosen the setscrews Ⓓ and Ⓔ and insert the Tweezers into the notch and guide hole to move the A/C head fully in the direction of the capstan to the extent.
5. Gradually move the A/C head toward the drum to find the position where the FM output level maximum for the first time (a' – b' in Fig. 2-4-8).
6. Fine adjust the phase of the A/C head and tighten the screws Ⓓ and Ⓔ at the point a.

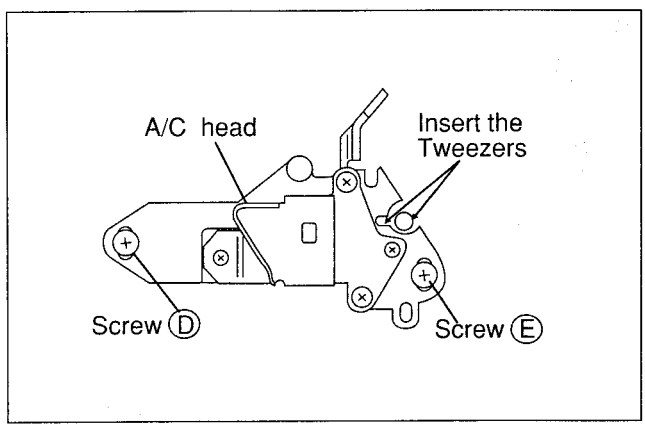


Fig. 2-4-7 Phase of control head

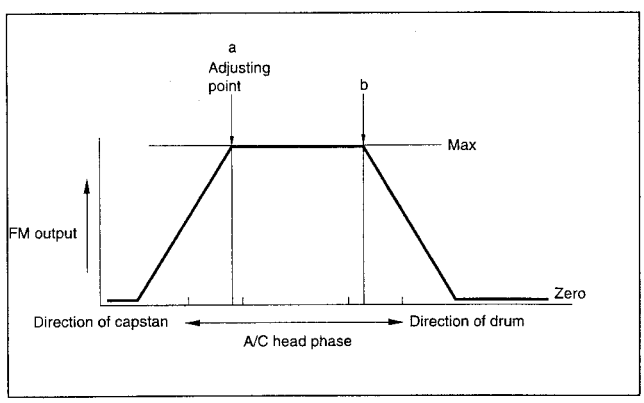


Fig. 2-4-8 Phase adjustment point of control head

2.5 REMARKS

2.5.1 Cleaning

1. For cleaning of the upper drum (particularly video heads), use fine-woven cotton cloth or Kimwipe with alcohol soaks through. Do not move the cloth but turn the upper drum counterclockwise.

   Note: *Make sure not to move the cloth in the vertical direction to the video head, since it may cause damage of the video heads.*

2. For cleaning of parts of the tape transport system except the upper drum, use fine-woven cotton cloth or cotton swab soaked alcohol.
3. After cleaning, confirm that the cleaned parts are completely dry before loading the deck with cassette tape.

2.5.2 Applying oil and grease

1. Periodical oiling and greasing are not required but should be done to new parts when replacing. If oil and grease on the other parts of the other party are old and dirty, wipe them clean and apply new oil or grease.
2. For parts and points to apply oil and grease, refer to the exploded view of the mechanism assembly (M3). Table 2-5-1 specifies oil and grease to be used.
3. When oiling, clean the objective parts with alcohol first and apply one or two drop(s) of oil. Too much oiling causes rotary parts to slip because of oil leakage.

Classification	Name	Symbol in drawing
Grease	KYODO-SH-P	AA
Oil	YTU94027	BB

Table 2-5-1 Specific oil and grease to be used

2.5.3 Checkup

After replacement of the supply reel disk and tension band, make sure to inspect back tension according to the adjustment procedure of MECHANISM ADJUSTMENT section.

2.6 JIG CONNECTION CABLE (YTU93082C) CONNECTION

Remove one screw (1) first and the cover (JIG) next.

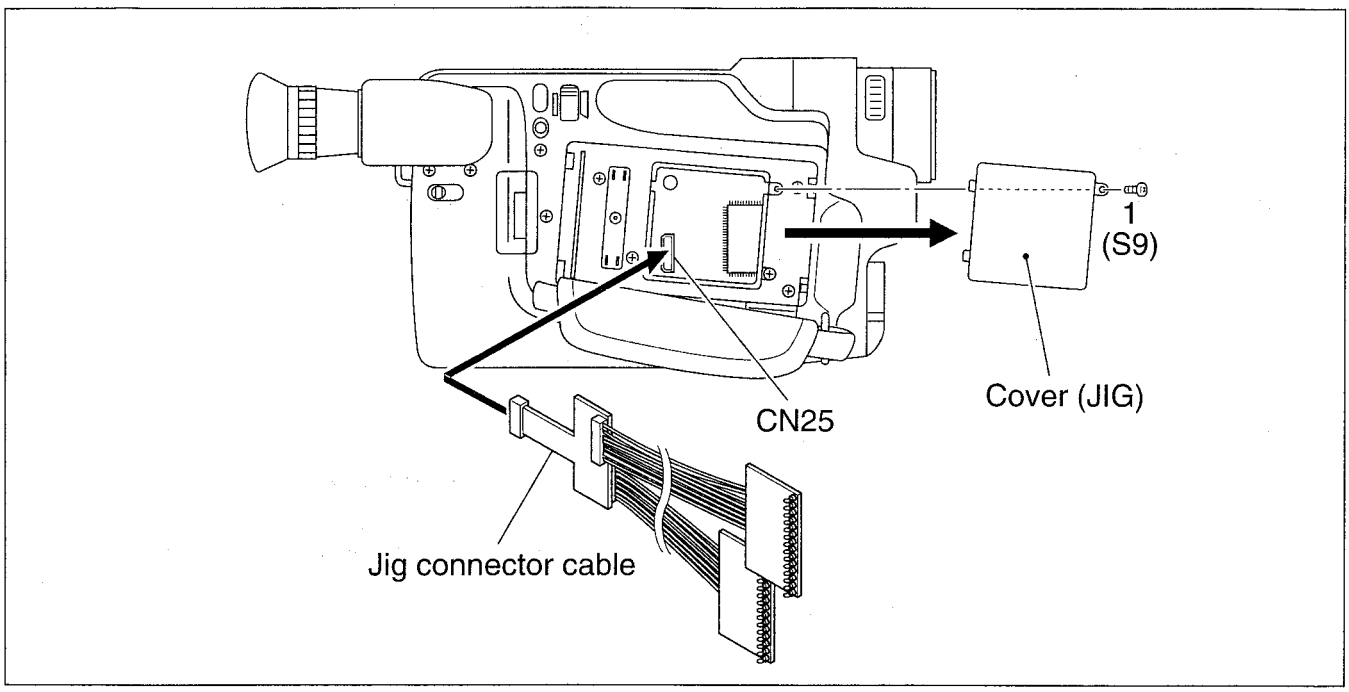


Fig. 2-6-1 Jig connector cable connection

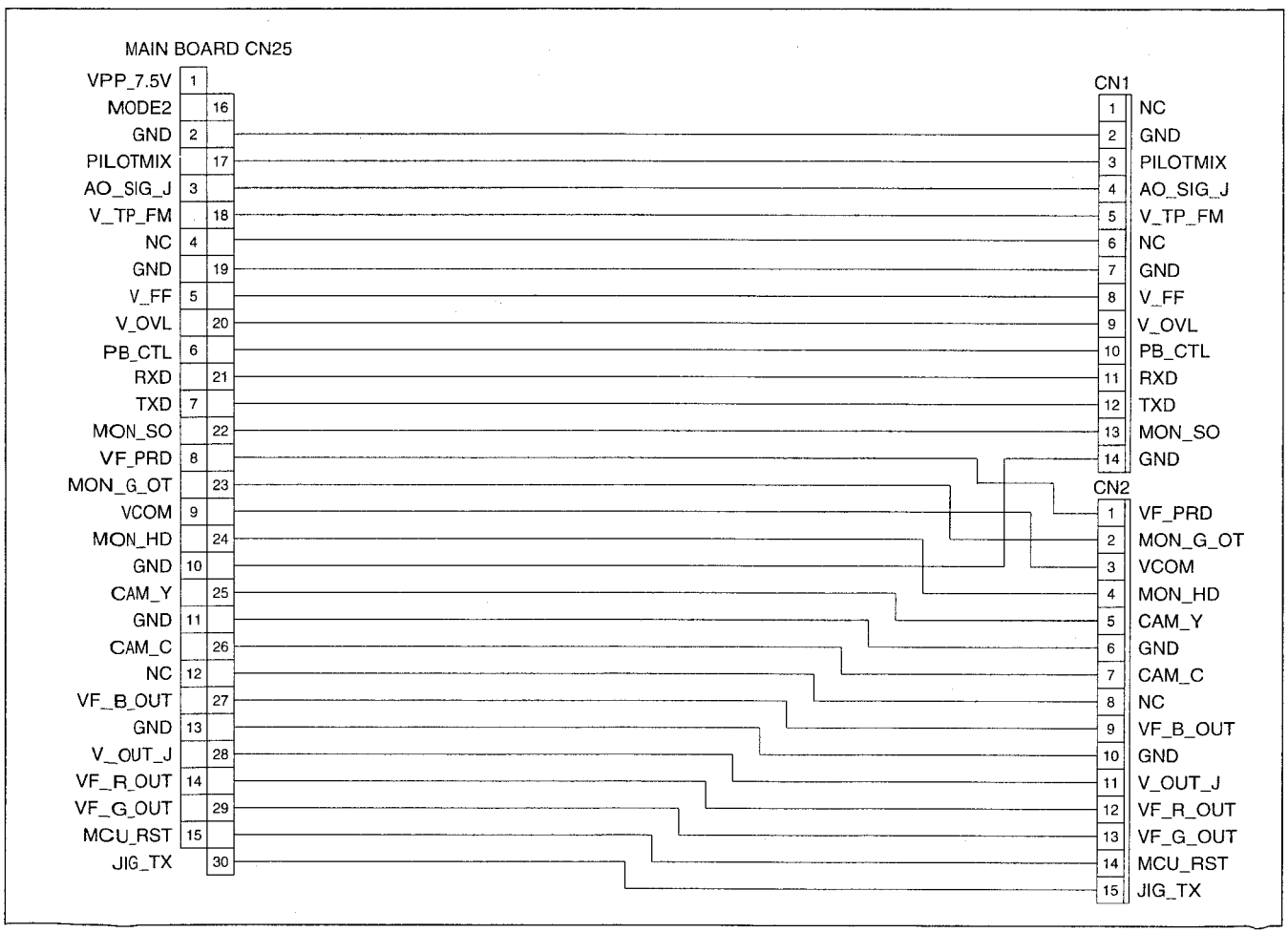


Fig. 2-6-2 Jig connector cable schematic diagram

SECTION 3
ELECTRICAL ADJUSTMENT

3.1 ELECTRICAL ADJUSTMENT

3.1.1 PREPARATION

1. Precaution

This model does not contain adjustment controls (VR). General deck system, camera system and monitor system adjustment are not required. However, if MAIN board and MONITOR board need replacement, please use original E²PROM on to new board. Then adjustment are not required. And if parts such as the following need replacement, special computerized adjustment are required (Refer to sec. 3.1.1-4). Please contact to JVC Service for detaile information.

- OP block
- COLOR VF
- E²PROM (IC105 of MAIN board)
- MONITOR
- E²PROM (IC7603 of MONITOR board)

In the event of malfunction with electrical circuits, trouble-shooting with the aid of proper test instruments most be done first, and then commence necessary repair, replacement and adjustment, etc.

1. In case of wiring to chip test points for measurement, use IC clips, etc. to avoid any stress.
2. Since connectors are fragile, carefully handle them in disconnecting and connecting.
3. Shortcircuit between operation un it and DECK chassis.

2. Required test equipment

1. Color TV monitor.
2. AC power adapter
3. Oscilloscope (dual-trace type, observable 100 MHz or higher frequency)
   * It is recommended to use one observable 300 MHz or higher frequency.
4. Digital voltmeter
5. Frequency counter (with threshold level adjuster)
6. Personal computer

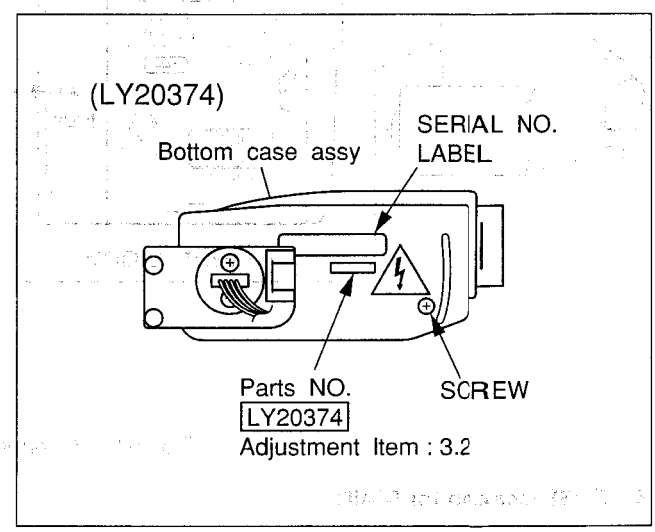
3. Required adjustment tools

For detsails of special jigs necessary for adjustment, refer to page 1-2 and 1-3 of the Section 1.

4. Setup for E. VF section adjustment

1) B/W E.VF (For SXM515)

Referring to "SEC. 1 DISASSEMBLY" and connect the E.VF WIRE to CN12 of the MAIN board.



2) COLOR E.VF (For SXM915)

Referring to "SEC. 1 DISASSEMBLY" and connect the E.VF FPC to CN11 of the MAIN board.

Note:

- *This adjustment falls into a special adjustment that requires a personal computer.*
  For details, refer to "3.1.1 Preparation".

5. Connections for Service support system

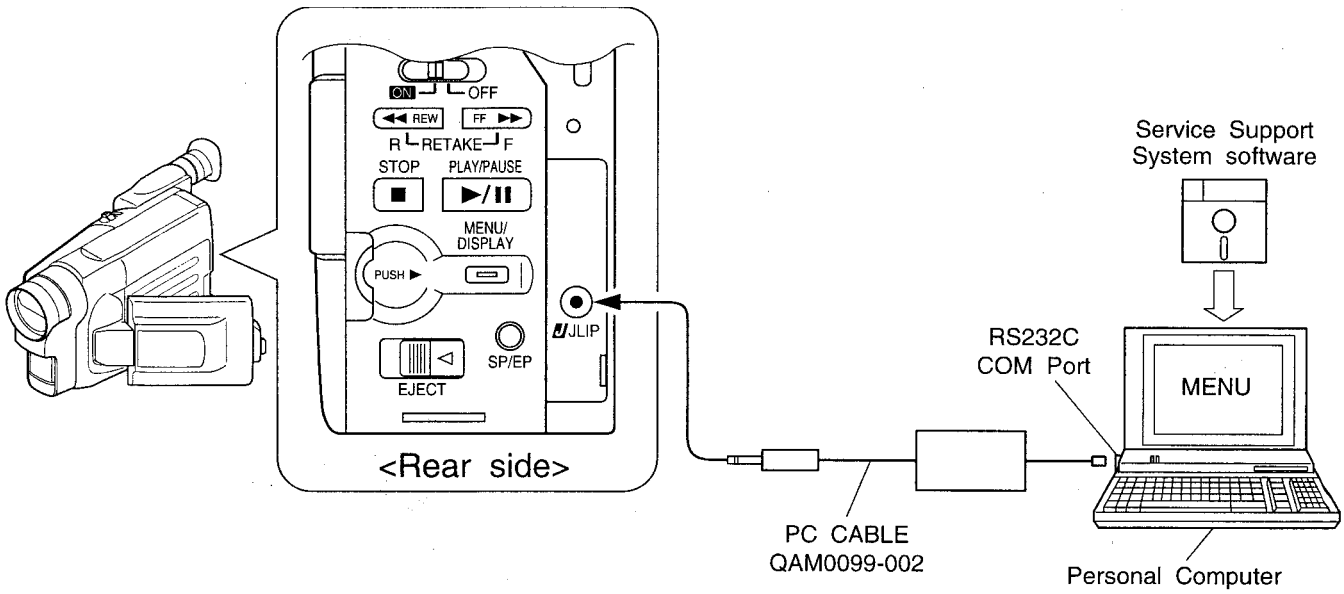


Fig. 3-1-1 Connection for Service support system

6. FUSE location for MAIN

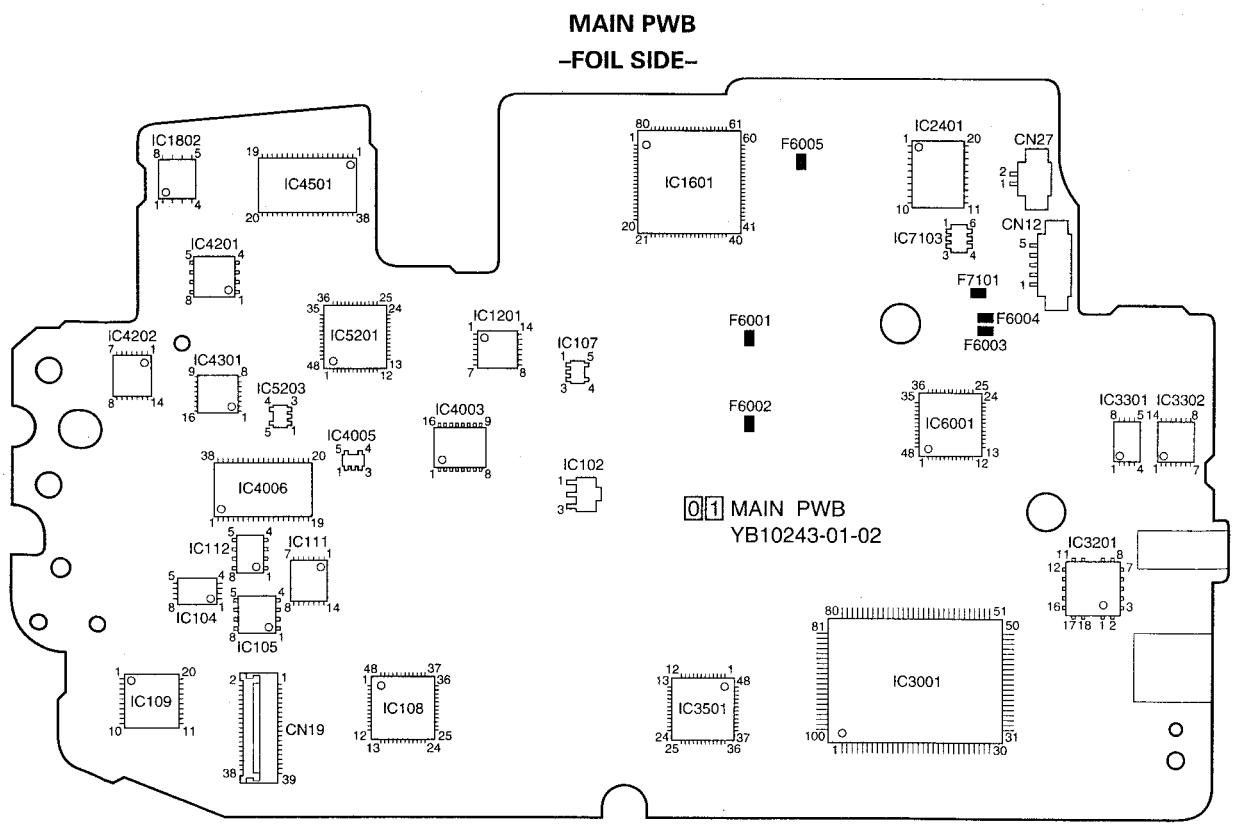


Fig. 3-1-2 FUSE location for MAIN board assembly (FOIL side)

7. FUSE location for MONITOR

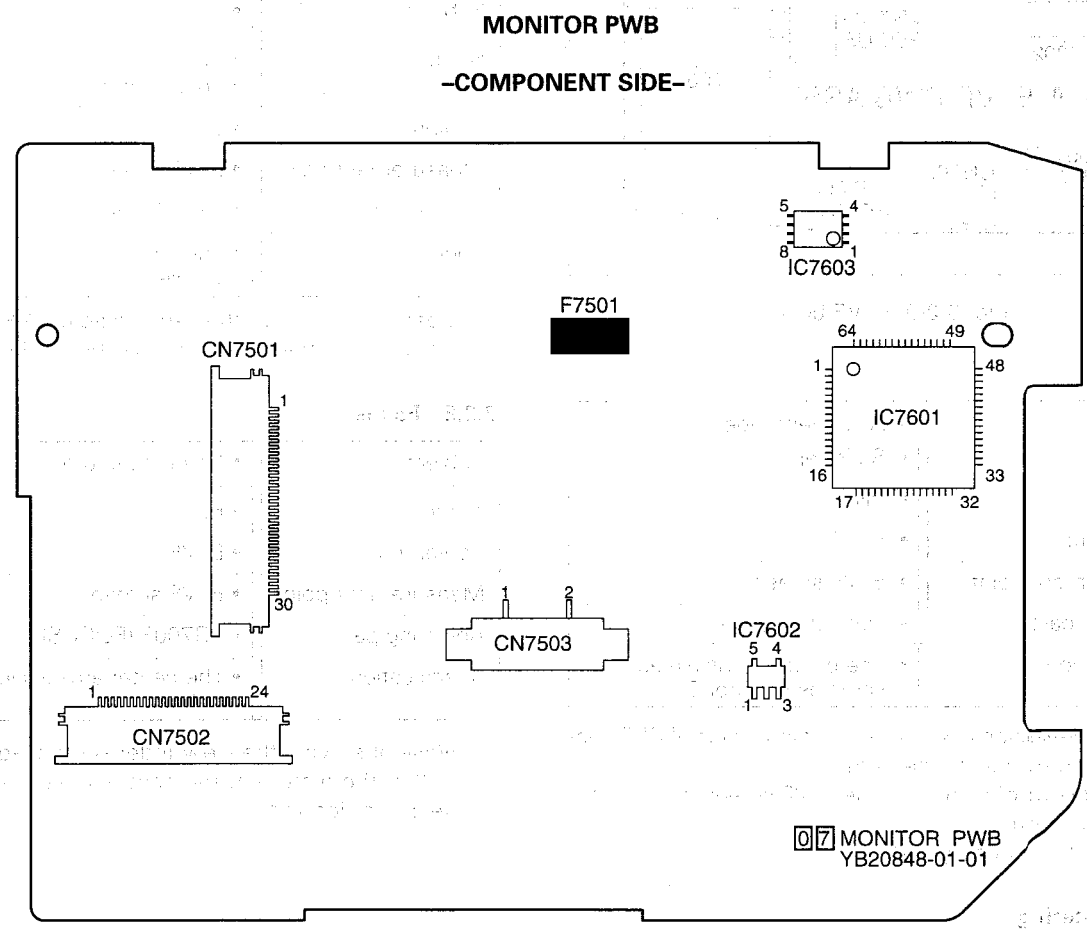


Fig. 3-1-3 FUSE location for MONITOR board assembly (COMPONENT side)

3.2 ELECTRONIC VIEWFINDER (E. VF) ADJUSTMENT (For SXM515)

Notes:

- *Unless otherwise specified, all measurement points and adjustment parts are located on E. VF board.*
- *After adjustment or replacement of the deflection yoke or the centering magnet, fix it by the band as shown the figure below.*

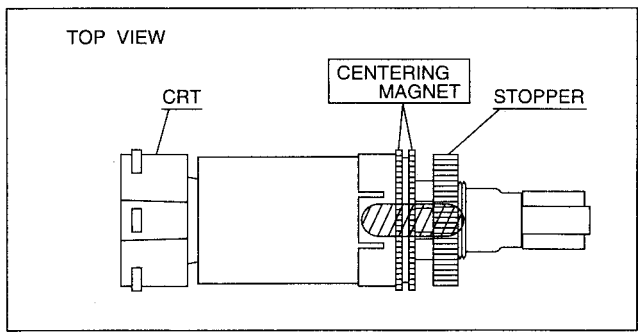


Fig. 3-2-1 E. VF

- *After adjustment is completed, compare the picture on the E. VF screen with the monitor TV.*

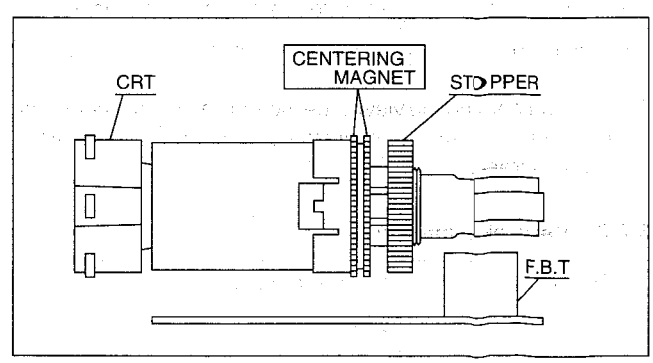


Fig. 3-2-2 E. VF

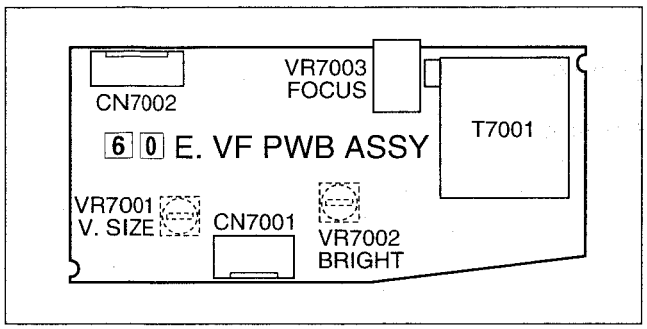


Fig. 3-2-3 E. VF board

3.2.1 Tilt

Subject	• Alignment tape • Stairstep
Mode	• PB
Equipment	• E. VF
Measurement point	• E. VF screen
Adjusting part	• Deflection yoke
Specification	• The picture is visible as same as monitor TV.

1) Put the deflection yoke to the most inner side of CRT neck first. Then fix the stopper temporary.
2) Adjust the tilt of picture on the E. VF screen by tilting the deflection yoke.
3) Fix the stopper completely.

3.2.2 Centering

Subject	• Alignment tape • Stairstep
Mode	• PB
Equipment	• E. VF
Measurement point	• E. VF screen
Adjusting part	• Centering magnet (CRT assy)
Specification	• The center of the E. VF screen

1) While observing the viewfinder screen, adjust the centering magnet to locate the stairstep in the center of the viewfinder screen.

3.2.3 Vertical scanning

Subject	• Camera picture
Mode	• EE
Equipment	• E. VF
Measurement point	• E. VF screen
Adjusting part	• VR7001 (V. SIZE)
Specification	• Normal picture amplitude

1) Observing the viewfinder screen, adjust VR7001 for normal picture amplitude.

3.2.4 Brightness

Subject	• –
Mode	• EE • Lens closed
Equipment	• E. VF
Measurement point	• E. VF screen
Adjusting part	• VR7002 (BRIGHT)
Specification	• The CRT raster is just barely visible

1) Close the lens with the cap and adjust VR7002 so that the raster of the CRT is just visible in the E. VF.

3.2.5 Focus

Subject	• Camera picture
Mode	• EE
Equipment	• E. VF
Measurement point	• E. VF screen
Adjusting part	• VR7003 (FOCUS)
Specification	• The center area is clear and defined

1) While observing the viewfinder screen, adjust VR7003 so that the picture at the central area of the screen is clear and defined.

SECTION 4
CHARTS AND DIAGRAMS

NOTES OF SCHEMATIC DIAGRAM

Safety precautions
The Components identified by the symbol ⚠ are critical for safety. For continued safety, replace safety critical components only with manufacturer's recommended parts.

1. Units of components on the schematic diagram

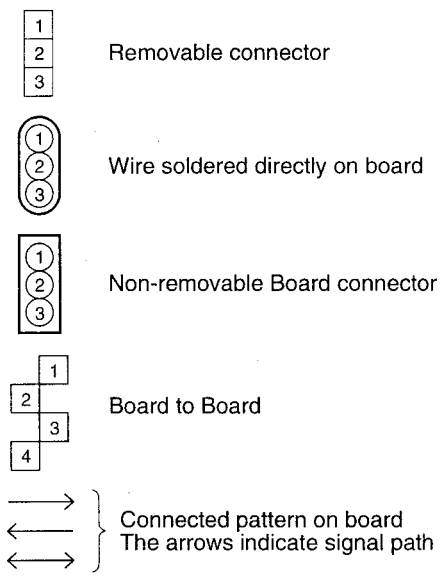
Unless otherwise specified.

1) All resistance values are in ohm, 1/6 W, 1/8 W (refer to parts list).
   Chip resistors are 1/16 W.
   K: KΩ (1000Ω), M: MΩ (1000KΩ)
2) All capacitance values are in μF, (P: PF).
3) All inductance values are in μH, (m: mH).
4) All diodes are 1SS133, MA165 or 1N4148M (refer to parts list).

2. Indications of control voltage

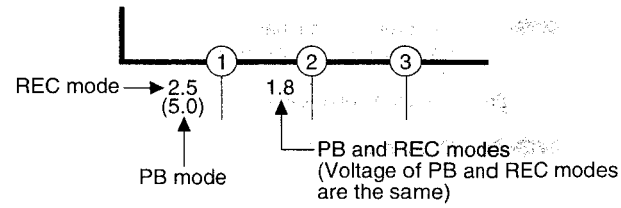
AUX : Active at high
$\overline{AUX}$ or AUX(L) : Active at low

3. Interpreting Connector indications



4. Voltage measurement

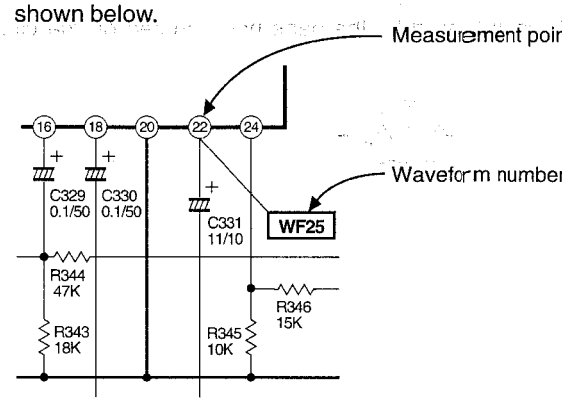
1) Video circuits
   REC : Colour bar signal in SP mode, normal VHS mode
   PB : Alignment tape, colour bar SP mode, normal VHS mode
   — : Unmeasurable or unnecessary to measure
2) Audio circuits
   REC : 1KHz, –8 dBs sine wave signal in SP mode, Normal VHS mode
   PB : REC then playback it
3) Movie Camera circuits
   Measured using a correctly illuminated gray scale or colour bar test charts in the E-E mode
4) Indication on schematic diagram
   Voltage Indications for REC and PB mode on the schematic diagram are as shown below.



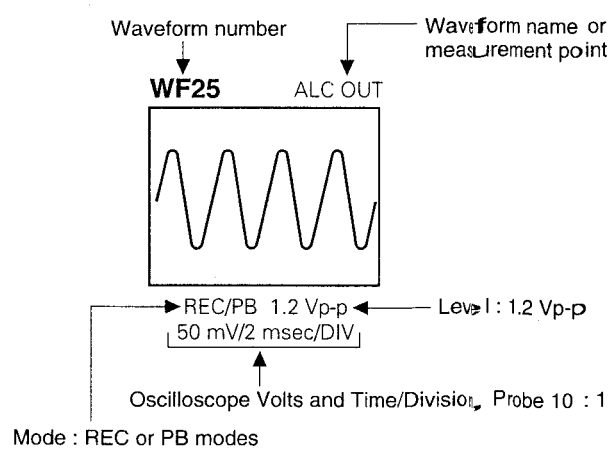
Note: If the voltages are not indicated on the schematic diagram, refer to the voltage charts.

5. Waveform measurement

1) Video circuits
   REC : Colour bar signal in SP mode, normal VHS mode
   PB : Alignment tape, colour bar SP mode, normal VHS mode
2) Audio circuits
   REC : 1KHz, –8 dBs sine wave signal in SP mode, normal VHS mode
   PB : REC then playback it
3) Movie Camera circuits
   Measured using a correctly illuminated gray scale or colour bar test chatrs in the E-E mode
4) Indication on schematic diagram
   Waveform indications on the schematic diagram are as shown below.



5) Waveform indications



6. Signal path Symbols

The arrows indicate the signal path as follows.

Playback signal path

Playback and recording signal path

Recording signal path
(including E-E signal path)

Capstan servo path

Drum servo path

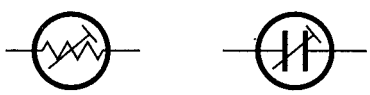
(Example)

R-Y Playback R-Y signal path

Y Recording Y signal path

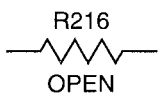
7. Indication of the parts for adjustments

The parts for the adjustments are surrounded with the circle as shown below.



8. Indication of the parts not mounted on the circuit board

"OPEN" is indicated by the parts not mounted on the circuit board.



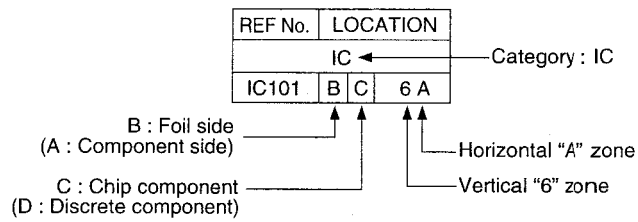
CIRCUIT BOARD NOTES

1. Foil and Component sides

1) Foil side (B side) :
Parts on the foil side seen from foil face (pattern face) are indicated.
2) Component side (A side) :
Parts on the component side seen from component face (parts face) indicated.

2. Parts location guides

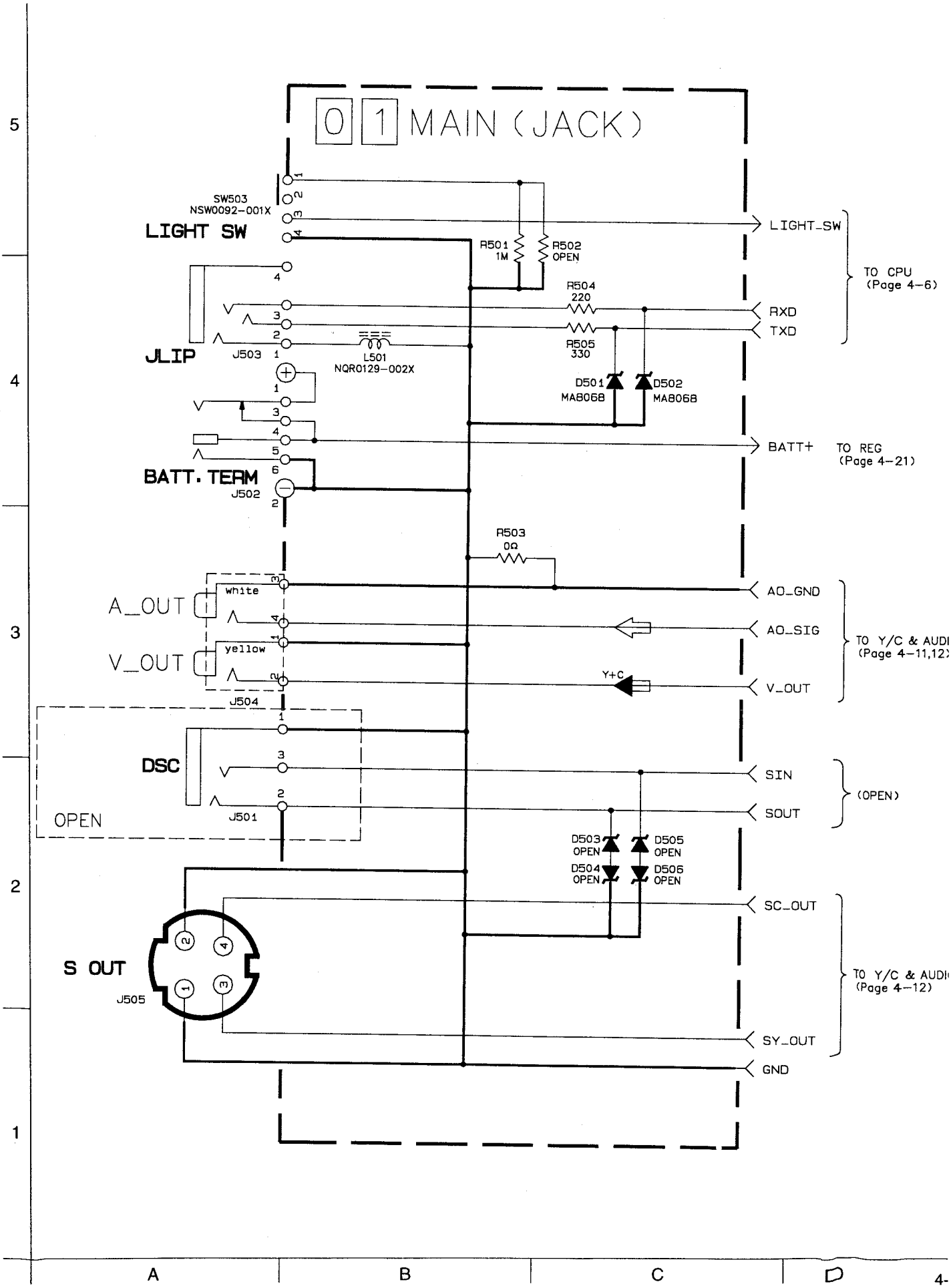
Parts location are indicated by guide scale on the circuit board.



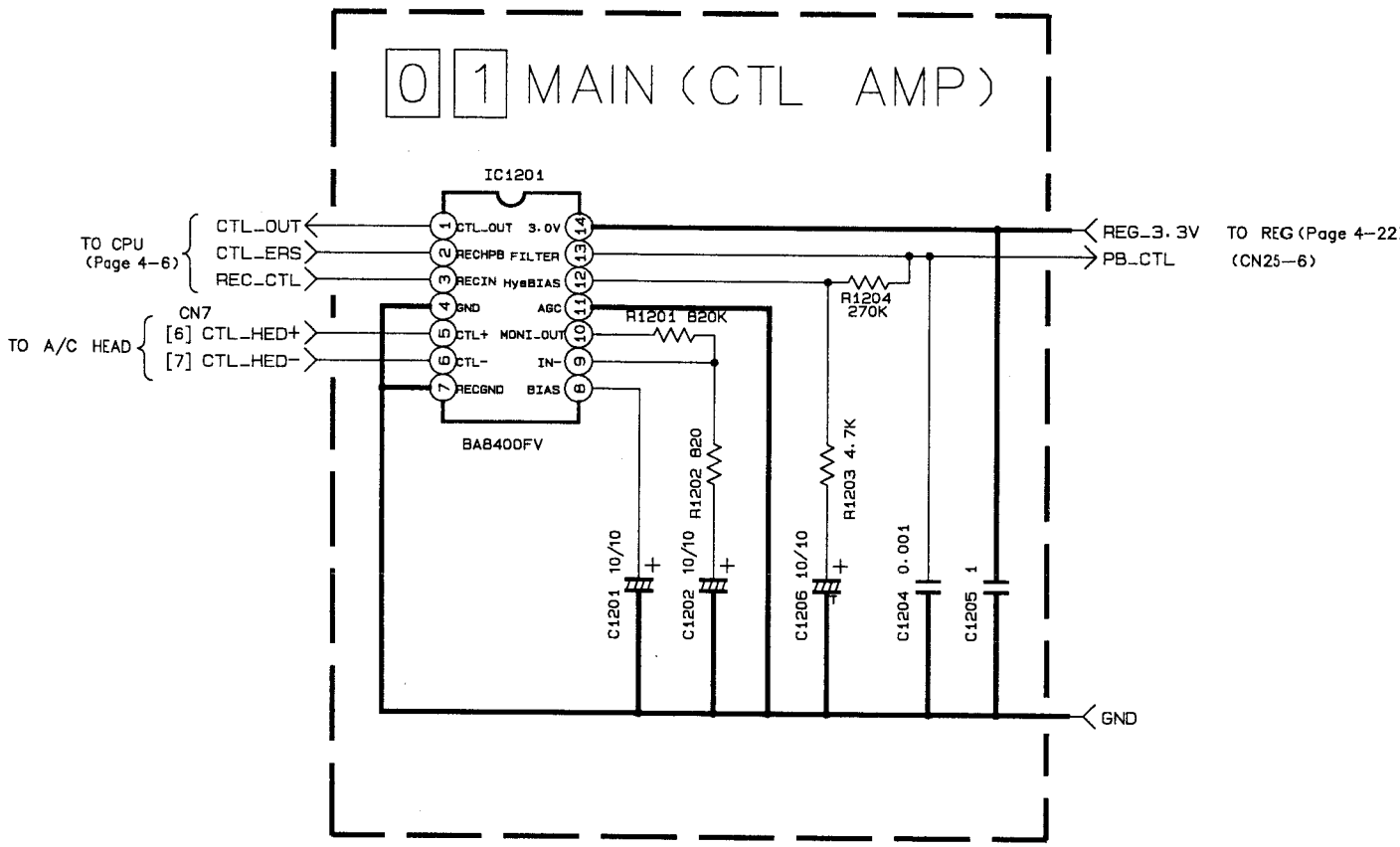
Note:

For general information in service manual, please refer to the Service Manual of GENERAL INFORMATION Edition 4 No. 82054D (January 1994).

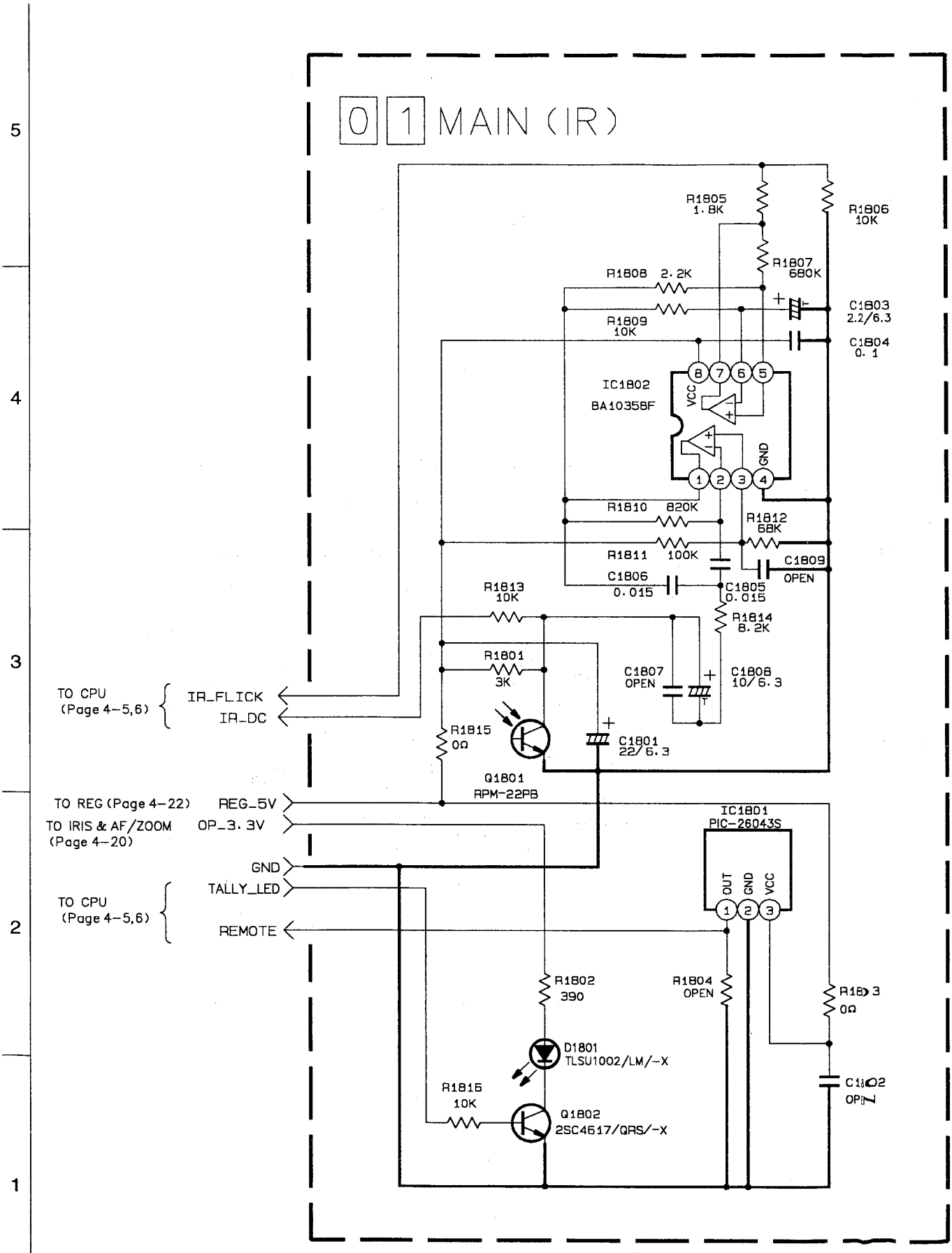
4.3 JACK SCHEMATIC DIAGRAM



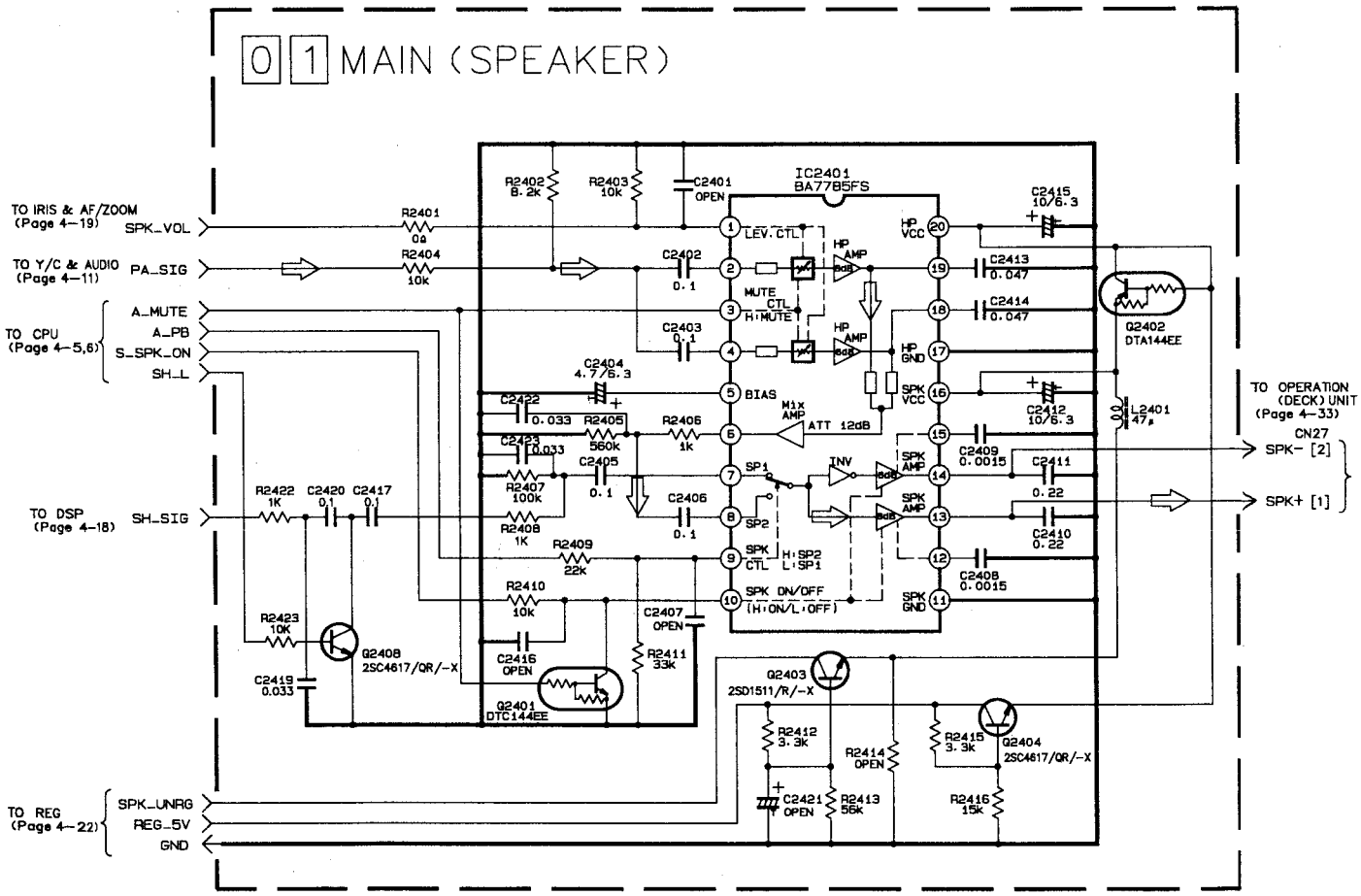
4.4 CTL AMP SCHEMATIC DIAGRAM



4.7 IR SCHEMATIC DIAGRAM



4.8 SPEAKER SCHEMATIC DIAGRAM



COMPONENT PARTS LOCATION GUIDE (MAIN)

REF.No.	LOCATION			REF.No.	LOCATION			REF.No.	LOCATION			REF.No.	LOCATION			REF.No.	LOCATION			REF.No.	LOCATION		
CAPACITOR				C2001	B	C	4D	C3043	B	C	6B	C4006	A	C	3B	C6006	B	C	7C	D3202	A	C	8A	L5204	B	C	2D
C101	A	C	4B	C2002	A	C	4D	C3044	B	C	6A	C4007	A	C	3B	C6007	B	C	7C	D3251	B	C	1B	L6001	A	C	6C
C102	B	C	4C	C2003	A	C	4D	C3045	B	C	5B	C4008	B	C	3C	C6008	B	C	7C	D3252	B	C	1B	L6002	A	C	6C
C103	A	C	2A	C2004	A	C	4D	C3046	B	C	5B	C4009	A	C	2B	C6009	B	C	7C	D3301	B	C	8C	L6003	A	C	6C
C104	A	C	3B	C2005	A	C	4D	C3047	B	C	5B	C4010	A	C	1B	C6010	B	C	7C	D5201	A	C	3D	L6004	A	C	6C
C105	A	C	4B	C2006	B	C	4D	C3048	A	C	7A	C4011	A	C	2B	C6011	A	C	6D	D6001	B	C	6D	L6005	A	C	6C
C106	A	C	4B	C2008	A	C	6B	C3049	B	C	5B	C4012	A	C	2C	C6012	B	C	7C	D6002	A	C	7C	L6006	A	C	6C
C107	B	C	3A	C2009	A	C	6B	C3101	A	C	7B	C4013	A	C	1B	C6013	B	C	7C	D6003	A	C	7C	L6007	B	C	7C
C108	B	C	1B	C2010	A	C	6A	C3102	A	C	7A	C4014	A	C	2B	C6014	B	C	7C	D6004	A	C	7C	L6008	B	C	6E
C109	A	C	3B	C2021	B	C	6A	C3103	A	C	7B	C4015	A	C	2B	C6015	B	C	7C	D6005	A	C	7C	L7101	B	C	7D
C110	A	C	3B	C2022	B	C	6A	C3104	A	C	7B	C4016	A	C	2C	C6016	B	C	7C	D7101	A	C	7E	L7103	B	C	7D
C111	B	C	1B	C2024	B	C	6A	C3105	A	C	7B	C4017	A	C	2C	C6017	B	C	7C	DA101	B	C	2B	**TRANSISTOR**			
C112	A	C	2B	C2025	A	C	6A	C3106	A	C	7B	C4018	A	C	3C	C6018	B	C	7C	DA105	B	C	4A				
C113	A	C	2B	C2026	A	C	6A	C3107	A	C	7B	C4021	B	C	3C	C6019	B	C	6C	DA107	A	C	4A	Q101	B	C	3B
C114	A	C	4B	C2027	A	C	6A	C3108	A	C	7B	C4022	A	C	3C	C6020	B	C	6C					Q102	B	C	3B
C115	A	C	4C	C2028	A	C	6A	C3109	A	C	7B	C4023	A	C	3C	C6021	B	C	6C	**IC**				Q105	B	C	4C
C116	B	C	3A	C2029	A	C	6A	C3110	A	C	7B	C4024	B	C	3B	C6022	B	C	6C	IC101	A	C	3A	Q106	B	C	4C
C117	B	C	3A	C2030	A	C	6A	C3111	B	C	2C	C4025	B	C	3C	C6023	B	C	6C	IC102	B	C	4C	Q107	B	C	4C
C118	B	C	3A	C2031	A	C	6A	C3112	A	C	7A	C4026	B	C	3C	C6024	B	C	6C	IC103	A	C	2A	Q108	B	C	4C
C119	A	C	4C	C2032	A	C	6A	C3113	A	C	1A	C4027	A	C	3C	C6025	B	C	6C	IC104	B	C	2B	Q109	A	C	7A
C120	B	C	4C	C2051	B	C	1C	C3114	A	C	7A	C4032	B	C	3D	C6026	B	C	6B	IC105	B	C	2B	Q110	A	C	7A
C121	A	C	3A	C2052	B	C	1C	C3201	B	C	8A	C4033	B	C	3C	C6027	B	C	6B	IC107	B	C	4C	Q111	A	C	7A
C122	A	C	3A	C2061	A	C	6A	C3202	A	C	7B	C4034	B	C	3C	C6028	B	C	6C	IC108	B	C	3A	Q112	A	C	7A
C123	A	C	2A	C2062	A	C	6A	C3206	B	C	8B	C4037	B	C	2B	C6029	B	C	7B	IC109	B	C	1A	Q113	A	C	8C
C124	B	C	1A	C2063	A	C	6A	C3207	B	C	7B	C4038	B	C	2C	C6030	A	C	6D	IC110	A	C	2B	Q1801	A	D	2D
C125	B	C	1A	C2071	A	C	5B	C3208	B	C	8B	C4040	A	C	1C	C6032	B	C	6C	IC111	B	C	2B	Q1802	B	C	2E
C126	B	C	1A	C2072	A	C	5B	C3209	B	C	7B	C4041	A	C	2B	C6033	B	C	6C	IC112	B	C	2B	Q2001	B	C	4D
C127	B	C	1A	C2073	A	C	5B	C3210	B	C	8B	C4042	B	C	2C	C6034	B	C	6C	IC1201	B	C	4C	Q2002	B	C	4D
C128	B	C	1A	C2074	A	C	5B	C3211	B	C	7B	C4043	B	C	3B	C6035	B	C	6C	IC1601	B	C	5E	Q2003	B	C	5D
C129	B	C	2A	C2075	A	C	5B	C3212	B	C	8B	C4044	B	C	3C	C6036	B	C	6C	IC1801	A	D	2D	Q2004	A	C	4D
C130	B	C	2B	C2076	A	C	5B	C3213	B	C	7B	C4201	A	C	1D	C6037	B	C	6C	IC1802	B	C	2E	Q2005	B	C	4D
C131	B	C	3A	C2077	A	C	5B	C3214	B	C	7B	C4202	A	C	1D	C6038	B	C	7C	IC2071	A	C	5B	Q2006	B	C	4D
C132	A	C	2B	C2078	A	C	6B	C3215	B	C	8B	C4203	B	C	1C	C6039	B	C	6D	IC2401	B	C	6E	Q2007	A	C	4C
C133	A	C	3B	C2079	A	C	6B	C3216	B	C	8B	C4204	B	C	1C	C6040	B	C	6D	IC3001	B	C	6A	Q2008	A	C	4C
C134	A	C	3B	C2080	A	C	6B	C3217	B	C	8B	C4205	A	C	1C	C6041	A	C	7C	IC3101	A	C	7B	Q2009	A	C	4D
C135	A	C	3A	C2081	A	C	5B	C3218	B	C	8B	C4206	A	C	1C	C6042	A	C	7C	IC3102	A	C	7B	Q2011	A	C	6A
C136	A	C	3A	C2401	B	C	6E	C3219	B	C	8B	C4207	A	C	1C	C6043	A	C	7C	IC3103	A	C	7B	Q2012	A	C	6A
C137	A	C	3A	C2402	B	C	6E	C3220	B	C	8C	C4208	B	C	2D	C6044	A	C	7C	IC3201	B	C	7B	Q2013	A	C	6A
C138	A	C	2A	C2403	B	C	6E	C3221	B	C	8A	C4209	B	C	1C	C6045	A	C	7C	IC3202	A	C	8B	Q2014	A	C	6A
C139	A	C	2A	C2404	B	C	6E	C3222	A	C	7B	C4210	B	C	2D	C6046	A	C	7D	IC3251	A	C	1A	Q2015	A	C	6A
C140	A	C	2B	C2405	B	C	6D	C3223	A	C	8B	C4211	A	C	1D	C6047	B	C	6D	IC3301	B	C	8C	Q2061	A	C	6A
C141	B	C	3B	C2406	B	C	6D	C3224	A	C	8B	C4212	B	C	1D	C6048	B	C	5D	IC3302	B	C	8C	Q2062	A	C	6A
C142	B	C	5C	C2407	B	C	6D	C3250	A	C	7B	C4213	A	C	1C	C6049	A	C	7C	IC3501	B	C	5A	Q2401	B	C	6D
C143	A	C	2B	C2408	B	C	7D	C3252	A	C	7B	C4214	B	C	2D	C6050	A	C	7D	IC4001	A	C	2C	Q2402	A	C	7E
C144	B	C	3A	C2409	B	C	7E	C3253	B	C	2B	C4215	B	C	2D	C6051	B	C	7C	IC4002	A	C	2B	Q2403	A	C	6E
C145	B	C	3A	C2410	B	C	7D	C3254	B	C	1B	C4301	B	C	2C	C6052	A	C	6D	IC4003	B	C	3C	Q2404	A	C	6E
C146	A	C	3A	C2411	B	C	7E	C3301	A	C	7D	C4501	B	C	2D	C6053	B	C	7D	IC4005	B	C	3C	Q2408	B	C	6E
C147	A	C	4A	C2412	A	C	6E	C3302	A	C	8C	C4502	B	C	3E	C6054	B	C	6E	IC4006	B	C	2C	Q3002	B	C	7A
C1201	A	C	4C	C2413	B	C	7E	C3303	B	C	8C	C4503	A	C	2D	C6201	A	C	6D	IC4201	B	C	2D	Q3003	B	C	7A
C1202	A	C	4D	C2414	B	C	7E	C3304	B	C	8C	C4504	B	C	2D	C7101	A	C	7E	IC4202	B	C	1C	Q3004	B	C	7A
C1204	B	C	4D	C2415	A	C	6E	C3305	A	C	8C	C4505	B	C	3E	C7102	A	C	7D	IC4203	A	C	1C	Q3005	B	C	7A
C1205	B	C	4D	C2416	B	C	6D	C3306	B	C	8C	C4506	B	C	3E	C7103	A	C	7D	IC4301	B	C	2C	Q3006	A	C	7B
C1206	B	C	4D	C2417	B	C	6D	C3307	B	C	8C	C4507	B	C	3E	C7104	A	C	7D	IC4501	B	C	2E	Q3007	B	C	6B
C1601	A	C	4D	C2419	B	C	6E	C3308	B	C	8C	C4508	B	C	3E	C7105	A	C	7E	IC5201	B	C	3D	Q3008	B	C	6B
C1602	A	C	5E	C2420	B	C	6E	C3309	B	C	8C	C4509	B	C	3E	C7106	B	C	7D	IC5202	A	C	2D	Q3009	B	C	5B
C1603	A	C	5D	C2421	A	C	6E	C3310	B	C	8C	C4510	B	C	3D	C7107	B	C	7D	IC5203	B	C	2C	Q3011	B	C	6A
C1604	A	C	5E	C2422	B	C	6E	C3311	B	C	8C	C4511	B	C	3E	C7108	A	C	7D	IC6001	B	C	7C	Q3012	A	C	7A
C1605	A	C	5E	C2423	B	C	6D	C3312	A	C	8C	C4512	B	C	2D	C7109	B	C	7D	IC6002	B	C	7C	Q3101	A	C	7A
C1606	B	C	5E	C3001	B	C	6A	C3501	A	C	5A	C5201	B	C	2D	C7112	B	C	7D	IC7101	A	C	7E	Q3102	A	C	7A
C1607	B	C	5E	C3002	B	C	6A	C3502	A	C	5A	C5202	B	C	2C	**CONNECTOR**				IC7102	A	C	7D	Q3103	A	C	7A
C1608	B	C	5E	C3003	B	C	6A	C3503	B	C	5A	C5203	B	C	3C					IC7103	B	C	7D	Q3104	A	C	1A
C1609	B	C	5E	C3004	B	C	6A	C3504	A	C	5A	C5204	B	C	3C	CN1	A	C	4A	**COIL**				Q3105	A	C	1A
C1610	A	C	5D	C3005	B	C	6A	C3505	A	C	5A	C5205	B	C	3C	CN2	A	C	8A					Q3106	A	C	7B
C1611	B	C	4E	C3006	A	C	6A	C3506	B	C	5A	C5206	B	C	3D	CN3	A	C	4D	L101	B	C	4C	Q3107	B	C	5B
C1612	B	C	4E	C3007	A	C	7A	C3507	B	C	5A	C5207	A	C	3D	CN4	A	C	2A	L102	B	C	1A	Q3201	B	C	8A
C1613	B	C	4E	C3008	B	C	7A	C3508	A	C	5A	C5210	A	C	3D	CN5	A	C	5A	L501	A	C	8B	Q3202	B	C	8A
C1614	B	C	4E	C3009	B	C	7A	C3509	A	C	5A	C5211	A	C	3D	CN7	A	C	3D	L2001	B	C	4D	Q3203	B	C	8A
C1615	A	C	4E	C3010	B	C	7A	C3510	B	C	5A	C5212	B	C	3D	CN8	A	C	5B	L2002	B	C	5B	Q3204	B	C	8A
C1616	A	C	4E	C3011	B	C	7A	C3511	B	C	5A	C5214	A	C	3D	CN11	A	C	7D	L2051	B	C	1C	Q3205	B	C	8A
C1617	A	C	4D	C3012	B	C	7A	C3512	B	C	5A	C5215	B	C	3D	CN12	B	C	7D	L2052	B	C	1C	Q3206	B	C	8A
C1618	B	C	5D	C3013	B	C	7A	C3513	B	C	5A	C5216	B	C	3D	CN13	A	C	8C	L2071	A	C	5B	Q3207	A	C	8A
C1619	B	C	5D	C3014	B	C	7A	C3514	A	C	5A	C5217	A	C	3D	CN14	A	C	6D	L2072	A	C	5B	Q3208	A	C	8A
C1620	B	C	5D	C3015	B	C	7A	C3515	B	C	5A	C5218	B	C	2C	CN15	A	C	2E	L2401	A	C	6E	Q3209	B	C	8B
C1621	A	C	5D	C3016	B	C	7A	C3516	B	C	5A	C5219	B	C	3C	CN16	A	C	7E	L3001	B	C	6A	Q3210	A	C	8A
C1622	B	C	5D	C3017	B	C	7A	C3517	A	C	5A	C5220	B	C	2C	CN18	A	C	4E	L3003	A	C	7A	Q3211	A	C	8B
C1623	B	C	5D	C3018	A	C	7A	C3518	B	C	5A	C5221	A	C	2D	CN19	B	C	2A	L3004	A	C	6B	Q3212	B	C	7B
C1624	B	C	5E	C3019	B	C	7A	C3519	B	C	5A	C5222	A	C	2D	CN22	A	C	3D	L3005	A	C	6B	Q3213	B	C	8A
C1625	B	C	5E	C3021	B	C	7B	C3520	B	C	5A	C5223	B	C	2D	CN25	A	C	4C	L3006	B	C	5B	Q3301	A	C	8C
C1626	B	C	5E	C3022	B	C	7B	C3521	B	C	5A	C5224	A	C	2D	CN26	A	C	5B	L3007	B	C	5B	Q3302	A	C	8C
C1627	B	C	5E	C3023	B	C	7B	C3522	A	C	5A	C5225	A	C	2D	CN27	B	C	7E	L3101	A	C	7A	Q3303	B	C	8C
C1628	B	C	5E	C3024	B	C	7B	C3523	B	C	5A	C5226	A	C	2D	**DIODE**				L3102	A	C	1A	Q3304	B	C	8C
C1629	A	C	5E	C3025	B	C	7B	C3524	B	C	5A	C5227	B	C	2C					L3201	A	C	8B	Q3305	B	C	8C
C1630	B	C	5E	C3026	B	C	6B	C3525	B	C	5A	C5228	A	C	2D	D101	B	C	3B	L3202	B	C	8A	Q3306	B	C	8C
C1631	B	C	5D	C3027	A	C	6B	C3526	A	C	5A	C5229	A	C	2D	D102	B	C	3B	L3301	A	C	7B	Q3501	A	C	5A
C1632	A	C	5E	C3029	B	C	6B	C3527	A	C	5A	C5230	A	C	2D	D103	B	C	4A	L3501	A	C	5A	Q3502	A	C	5A
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C1635	B	C	4E	C3032	A	C	6B	C3903	A	C	4A	C5235	B	C	2D	D502	A	C	8B	L3902	A	C	4A	Q3507	A	C	5A
C1636	B	C	4E	C3033	A	C	6B	C3904	B	C	4A	C5237	B	C	3C	D503	A	C	8B	L3903	A	C	4A	Q3508	A	C	5A
C1801	A	C	2D	C3034	A	C	6B	C3905	B	C	4A	C5239	B	C	2D	D504	A	C	7B	L3904	B	C	4A	Q3509	B	C	5A
C1802	B	C	2D	C3035	A	C	6B	C3906	A	C	4A	C5240	B	C	2D	D505	A	C	8B	L4001	A	C	1B	Q3901	B	C	4A
C1803	A	C	2E	C3036	B	C	5B	C3907	A	C	4A	C5241	A	C	2D	D506	A	C	8B	L4002	B	C	3D	Q3903	B	C	4A
C1804	B	C	1E	C3037	B	C	6B	C3908	B	C	4A	C5242	B	C	2C	D1801	A	C	2E	L4201	B	C	2D	Q3904	A	C	4A
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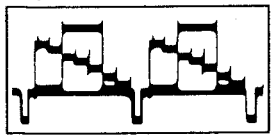
C1806	A	C	2E	C3039	B	C	6B	C4002	A	C	3C	C6002	A	C	7C	D3102	A	C	2A	L4502	B	C	2D	Q3906	B	C	4A
C1807	B	C	1D	C3040	B	C	6A	C4003	A	C	3B	C6003	B	C	6C	D3103	A	C	2A	L4503	B	C	2D	Q4001	B	C	3B
C1808	A	C	2D	C3041	B	C	6A	C4004	A	C	3B	C6004	B	C	6C	D3104	B	C	1C	L5201	B	C	3C	Q4002	B	C	3C
C1809	B	C	2D	C3042	A	C	6B	C4005	A	C	3B	C6005	B	C	6C	D3201	B	C	8A	L5203	B	C	2D	Q4005	B	C	3C

REF.No.	LOCATION			REF.No.	LOCATION			REF.No.	LOCATION			REF.No.	LOCATION			REF.No.	LOCATION			REF.No.	LOCATION		
Q4006	A	C	4C	R179	A	C	4A	R2026	A	C	6A	R3119	A	C	1A	R3530	B	C	5A	R4516	B	C	3D	RA108	B	C	3B
Q4007	A	C	4C	R180	A	C	3A	R2027	B	C	1C	R3120	A	C	1A	R3531	B	C	5A	R5201	B	C	3C	VR3301	A	C	8C
Q4201	B	C	2C	R181	A	C	3A	R2028	A	C	6A	R3121	A	C	7A	R3532	A	C	5A	R5202	B	C	3C	VR3302	A	C	8C
Q4202	B	C	2D	R182	A	C	2B	R2029	A	C	6A	R3122	A	C	1A	R3533	A	C	5A	R5203	B	C	3C				
Q4203	B	C	3D	R183	A	C	2B	R2030	A	C	6A	R3123	A	C	7A	R3534	B	C	5A	R5204	B	C	2D	**OTHER**			
Q4501	A	C	3E	R184	A	C	7A	R2033	A	C	6A	R3125	A	C	7B	R3535	B	C	5A	R5205	B	C	3C	F6001	B	C	5D
Q4502	A	C	2E	R185	A	C	2A	R2034	A	C	6A	R3126	A	C	7B	R3536	A	C	5A	R5207	B	C	3C	F6002	B	C	5C
Q6001	B	C	6B	R186	A	C	2B	R2035	A	C	6A	R3127	A	C	7B	R3901	A	C	4A	R5208	B	C	3C	F6003	B	C	7D
Q6002	B	C	6C	R187	A	C	2A	R2036	A	C	6A	R3128	A	C	7B	R3902	A	C	4A	R5209	B	C	3C	F6004	B	C	7D
Q6003	B	C	6C	R188	A	C	3A	R2051	B	C	1C	R3129	A	C	1A	R3903	B	C	4A	R5210	B	C	3D	F6005	B	C	6E
Q6004	B	C	6D	R189	A	C	3A	R2052	B	C	1C	R3130	A	C	1A	R3904	B	C	4A	R5211	B	C	3D	F7101	B	C	7D
Q6005	B	C	6D	R190	B	C	4B	R2053	B	C	1C	R3132	A	C	7B	R3905	B	C	4A	R5212	B	C	3D	FL3201	B	C	7A
Q6006	B	C	6D	R191	B	C	5C	R2061	A	C	7A	R3133	B	C	5B	R3906	B	C	4A	R5213	A	C	3D	J501	B	D	8B
Q6007	A	C	7C	R192	A	C	3A	R2062	A	C	6A	R3134	A	C	7B	R4001	A	C	3C	R5217	A	C	2D	J502	A	D	5C
Q6008	A	C	7C	R193	B	C	3B	R2063	A	C	6A	R3136	B	C	7B	R4002	A	C	3C	R5228	B	C	2D	J503	B	D	8A
Q6009	A	C	7C	R194	A	C	3B	R2064	A	C	6A	R3137	A	C	1A	R4003	A	C	3C	R5229	A	C	2D	J504	A	D	1C
Q6201	B	C	6D	R195	A	C	8C	R2065	A	C	6A	R3138	A	C	2A	R4004	A	C	3C	R6001	B	C	6C	J505	A	D	1B
Q6202	B	C	6E	R501	A	C	8C	R2066	A	C	6A	R3139	B	C	5B	R4005	B	C	3C	R6002	B	C	6C	SW503	A	C	8D
Q6203	A	C	6E	R502	A	C	8C	R2071	A	C	5B	R3140	B	C	6B	R4006	B	C	3B	R6003	B	C	7C	T2001	A	C	4D
QA1601	B	C	4E	R503	B	C	1B	R2072	A	C	5B	R3141	A	C	7A	R4007	B	C	3C	R6004	B	C	7C	T6001	A	C	6D
QA1602	B	C	4E	R504	A	C	8B	R2073	A	C	5B	R3201	B	C	8A	R4008	B	C	3B	R6005	B	C	7C	X101	A	C	2B
REGISTOR				R505	A	C	8B	R2074	A	C	5B	R3202	B	C	8A	R4009	B	C	3B	R6006	B	C	7C	X102	B	C	1B
				R1201	B	C	4C	R2075	A	C	5B	R3203	B	C	7A	R4010	B	C	3B	R6007	B	C	7C	X3001	A	D	6B
R101	A	C	2A	R1202	B	C	4C	R2076	A	C	5B	R3204	B	C	7A	R4011	A	C	2B	R6008	B	C	7C	X5201	B	C	3C
R102	B	C	3B	R1203	B	C	4D	R2077	A	C	5B	R3205	B	C	7B	R4012	A	C	2B	R6009	B	C	7C				
R103	B	C	3B	R1204	B	C	4D	R2078	A	C	6B	R3206	B	C	8A	R4013	A	C	2B	R6010	B	C	7C				
R104	B	C	3B	R1601	A	C	5E	R2079	A	C	5B	R3207	B	C	7A	R4014	A	C	2C	R6011	B	C	7C				
R105	B	C	3B	R1602	A	C	5E	R2080	A	C	5B	R3208	B	C	8A	R4015	A	C	2C	R6012	B	C	7C				
R106	B	C	3B	R1603	B	C	5E	R2081	A	C	5B	R3209	B	C	8A	R4016	A	C	2C	R6013	B	C	7C				
R107	B	C	4B	R1604	B	C	5E	R2401	B	C	6E	R3210	B	C	8A	R4017	A	C	1C	R6014	B	C	7C				
R108	B	C	2B	R1605	B	C	5E	R2402	B	C	6E	R3211	B	C	7A	R4018	A	C	1C	R6015	A	C	7C				
R109	A	C	2A	R1606	B	C	4E	R2403	B	C	6E	R3212	B	C	8A	R4019	A	C	1C	R6016	B	C	7C				
R110	A	C	3B	R1607	B	C	4E	R2404	B	C	6E	R3213	A	C	8A	R4020	A	C	1C	R6017	B	C	7C				
R111	A	C	3B	R1608	B	C	4E	R2405	B	C	6E	R3214	A	C	8A	R4021	A	C	1C	R6018	A	C	7C				
R112	B	C	2B	R1609	A	C	5D	R2406	B	C	6E	R3215	A	C	8A	R4022	A	C	1C	R6019	B	C	6C				
R113	A	C	4B	R1610	A	C	4E	R2407	B	C	6D	R3221	B	C	7B	R4023	A	C	1C	R6020	B	C	6C				
R114	A	C	3B	R1611	A	C	4E	R2408	B	C	6D	R3222	B	C	7B	R4024	A	C	1C	R6021	B	C	6C				
R115	A	C	4B	R1612	A	C	5D	R2409	B	C	6D	R3223	B	C	7B	R4025	A	C	1C	R6022	B	C	6C				
R116	A	C	2B	R1613	A	C	5D	R2410	B	C	6D	R3224	B	C	7B	R4026	A	C	1C	R6023	B	C	6C				
R117	A	C	2B	R1614	B	C	5D	R2411	B	C	6D	R3225	B	C	7B	R4027	B	C	3B	R6024	B	C	6C				
R118	A	C	3A	R1615	A	C	5D	R2412	A	C	6E	R3226	B	C	7B	R4028	B	C	3C	R6025	B	C	6C				
R119	B	C	3A	R1616	A	C	5D	R2413	A	C	6E	R3227	B	C	7B	R4038	B	C	3C	R6026	B	C	6C				
R120	A	C	2B	R1617	B	C	5E	R2414	A	C	6E	R3228	B	C	7B	R4039	A	C	4C	R6027	B	C	6C				
R121	B	C	4C	R1618	B	C	5E	R2415	A	C	6E	R3229	B	C	7B	R4040	A	C	4C	R6028	B	C	6C				
R122	A	C	3B	R1619	B	C	5E	R2416	A	C	6E	R3230	B	C	7B	R4041	B	C	4C	R6029	B	C	6D				
R123	B	C	1A	R1620	A	C	5E	R2422	B	C	6E	R3231	B	C	7B	R4042	A	C	3C	R6030	B	C	6D				
R124	A	C	3B	R1621	A	C	5E	R2423	B	C	6E	R3232	B	C	7B	R4043	A	C	4C	R6031	B	C	6D				
R125	B	C	3A	R1622	A	C	5E	R3001	B	C	6A	R3233	B	C	8B	R4051	B	C	3B	R6032	A	C	7D				
R126	B	C	3A	R1623	B	C	6E	R3002	B	C	6A	R3234	B	C	8B	R4052	B	C	3B	R6033	A	C	7D				
R127	A	C	3A	R1624	B	C	6E	R3003	B	C	7A	R3235	B	C	8B	R4053	B	C	3C	R6034	B	C	6C				
R128	B	C	4C	R1625	A	C	5D	R3004	B	C	7A	R3236	B	C	8B	R4054	A	C	3C	R6035	B	C	6C				
R129	B	C	4C	R1626	A	C	4E	R3005	B	C	6A	R3237	B	C	8B	R4055	A	C	4C	R6036	B	C	6C				
R130	B	C	4C	R1627	A	C	4E	R3006	B	C	6A	R3238	B	C	8B	R4056	A	C	3C	R6037	B	C	6C				
R131	A	C	3A	R1628	A	C	4E	R3007	A	C	6A	R3239	A	C	8A	R4057	B	C	4C	R6038	B	C	6C				
R132	A	C	7A	R1629	A	C	5E	R3008	A	C	6A	R3240	A	C	8A	R4062	B	C	3B	R6039	B	C	6C				
R133	A	C	7A	R1630	B	C	5D	R3009	B	C	7A	R3241	A	C	8B	R4201	B	C	1C	R6040	B	C	6C				
R134	A	C	7A	R1631	B	C	5D	R3011	B	C	7B	R3242	B	C	7C	R4202	B	C	1C	R6041	B	C	6C				
R135	B	C	3A	R1801	B	C	1D	R3012	A	C	7B	R3243	B	C	8A	R4203	B	C	1C	R6042	B	C	6D				
R136	A	C	2B	R1802	B	C	2E	R3013	A	C	7B	R3244	B	C	8A	R4205	A	C	1C	R6043	A	C	7C				
R137	B	C	3A	R1803	B	C	2E	R3014	B	C	7B	R3245	A	C	8B	R4206	B	C	1C	R6044	A	C	7C				
R138	A	C	2A	R1804	B	C	2D	R3015	B	C	7B	R3246	A	C	8B	R4207	B	C	1C	R6045	A	C	7C				
R139	A	C	3A	R1805	A	C	2E	R3016	B	C	2B	R3251	B	C	1B	R4208	B	C	1C	R6046	A	C	7D				
R140	A	C	2A	R1806	A	C	2E	R3017	B	C	2B	R3252	B	C	1B	R4209	A	C	1C	R6047	B	C	5C				
R141	B	C	1A	R1807	A	C	2E	R3019	B	C	6B	R3301	A	C	8C	R4210	A	C	1C	R6048	B	C	6D				
R142	B	C	2B	R1808	A	C	2E	R3020	B	C	6B	R3302	A	C	7C	R4211	B	C	1C	R6049	B	C	5D				
R143	B	C	2A	R1809	A	C	2E	R3021	B	C	6B	R3303	A	C	8C	R4214	B	C	1D	R6050	A	C	7C				
R144	B	C	2A	R1810	A	C	2D	R3022	B	C	6B	R3304	A	C	7C	R4215	B	C	1D	R6052	B	C	7C				
R145	B	C	2A	R1811	B	C	2D	R3023	B	C	6B	R3305	A	C	7C	R4216	A	C	1C	R6053	B	C	6C				
R146	B	C	2B	R1812	B	C	2D	R3024	B	C	6B	R3306	A	C	8C	R4217	A	C	1C	R6054	A	C	7D				
R147	B	C	3A	R1813	B	C	1D	R3025	A	C	6B	R3307	B	C	8C	R4218	B	C	1D	R6055	B	C	7C				
R148	B	C	3A	R1814	A	C	1D	R3026	A	C	6B	R3308	B	C	8C	R4219	B	C	1D	R6056	B	C	7C				
R149	B	C	3A	R1815	A	C	2D	R3027	B	C	6B	R3309	B	C	8C	R4223	B	C	3D	R6201	B	C	6E				
R150	B	C	3A	R1816	B	C	2E	R3028	B	C	5B	R3310	B	C	8C	R4224	B	C	2D	R6202	A	C	6E				
R151	B	C	3A	R2001	B	C	4D	R3029	B	C	6B	R3311	B	C	8C	R4225	B	C	1D	R6203	A	C	6E				
R152	B	C	3A	R2002	B	C	4D	R3030	B	C	6B	R3312	B	C	8C	R4226	B	C	2D	R6204	A	C	6E				
R153	B	C	3A	R2003	B	C	4D	R3031	B	C	5B	R3313	B	C	8C	R4227	B	C	2D	R6205	B	C	6D				
R154	B	C	3A	R2004	B	C	4D	R3033	B	C	6A	R3314	B	C	8C	R4228	B	C	2D	R6206	B	C	6D				
R155	B	C	3A	R2005	B	C	4D	R3034	B	C	5B	R3315	B	C	8C	R4229	B	C	3D	R7101	A	C	7D				
R156	A	C	2A	R2006	B	C	4D	R3035	B	C	5B	R3316	B	C	8C	R4230	B	C	2D	R7102	A	C	7D				
R157	B	C	4A	R2007	A	C	4D	R3036	A	C	7B	R3317	B	C	8C	R4231	B	C	2D	R7103	A	C	7D				
R158	B	C	4A	R2008	A	C	4D	R3037	B	C	6A	R3318	B	C	8C	R4232	B	C	2D	R7104	B	C	7D				
R159	B	C	4A	R2009	A	C	4D	R3038	A	C	7A	R3319	B	C	8C	R4233	B	C	2D	R7106	A	C	7D				
R160	B	C	3B	R2010	B	C	4D	R3039	A	C	6A	R3320	A	C	4C	R4234	A	C	1C	R7107	A	C	7D				
R161	B	C	3B	R2011	A	C	4C	R3101	A	C	7A	R3501	A	C	5A	R4501	B	C	2E	R7108	A	C	7E				
R162	B	C	3B	R2012	A	C	4C	R3102	A	C	7B	R3503	B	C	5A	R4502	B	C	3E	R7109	A	C	7E				
R163	A	C	3B	R2013	B	C	5B	R3103	A	C	7B	R3504	A	C	5A	R4503	B	C	2E	R7111	A	C	7E				
R165	B	C	3A	R2014	B	C	5B	R3104	A	C	7B	R3506	A	C	5A	R4504	B	C	2E	R7112	A	C	7E				
R166	A	C	3A	R2015	B	C	5B	R3109	A	C	7B	R3508	B	C	5A	R4505	B	C	2E	R7113	A	C	7D				
R167	A	C	3A	R2016	A	C	4C	R3110	A	C	7A	R3509	A	C	5A	R4506	B	C	2E	R7115	A	C	7D				
R168	B	C	3A	R2017	A	C	6A	R3111	A	C	7A	R3515	A	C	5A	R4507	B	C	2E	R7116	B	C	7D				
R169	B	C	4B	R2018	B	C	5B	R3112	A	C	7A	R3519	B	C	5A	R4508	B	C	2E	R7117	B	C	7D				
R170	B	C	4B	R2019	B	C	5B	R3113	A	C	7A	R3520	B	C	5A	R4509	B	C	2D	R7118	B	C	7D				
R171	B	C	2B	R2020	A	C	3C	R3114	A	C	7A	R3525	A	C	5A	R4510	B	C	3D	RA101	B	C	2A				
R172	B	C	2B	R2021	B	C	6A	R3115	A	C	7B	R3526	A	C	5A	R4511	B	C	3D	RA102	B	C	3B				
R173	B	C	4B	R2022	B	C	6A	R3116	A	C	7A	R3527	A	C	5A	R4512	A	C	3E	RA103	B	C	2A				
R174	A	C	2A	R2023	B	C	6A	R3117	A	C	7A	R3528	A	C	5A	R4513	A	C	2E	RA105	A	C	3A				
R178	A	C	3A	R2024	A	C	6A	R3118	A	C	7A	R3529	A	C	5A	R4515	B	C	3D	RA107	B	C	4A				

4.28 WAVEFORMS

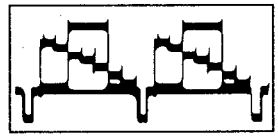
– Y/C & AUDIO –

WF1 IC3102-1



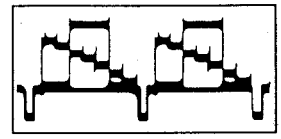
REC 1.2Vp-p
20mV/10µse/DIV

WF2 IC3102-3



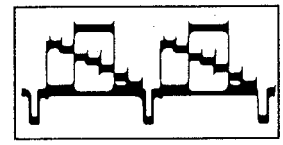
PB 0.95 Vp-p
20mV/10msec/DIV

WF3 IC3102-7



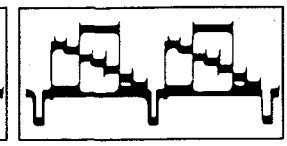
REC 1.12 Vp-p
PB 0.95 Vp-p
20mV/10µsec/DIV

WF4 IC3201-1



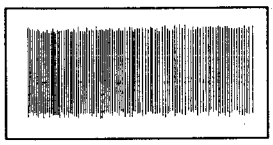
REC 0.42 Vp-p
PB 0.4 Vp-p
10mV/10µsec/DIV

WF5 IC3201-9



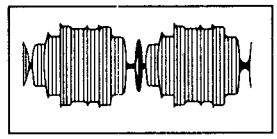
REC/PB 1.2 Vp-p
20mV/10µsec/DIV

WF6 IC3001-92



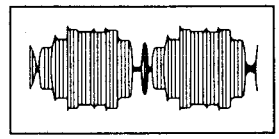
REC 0.45 Vp-p
10mV/10µsec/DIV

WF7 IC3101-1



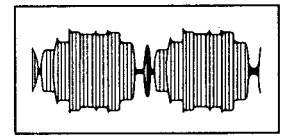
REC 0.44 Vp-p
10mV/10µsec/DIV

WF8 IC3101-7



REC 0.44 Vp-p
PB 0.58 Vp-p
10mV/10µsec/DIV

WF9-1 IC3001-78



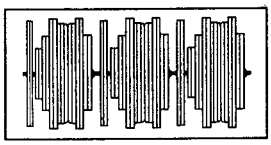
REC 0.54 Vp-p
10mV/10µsec/DIV

WF9-2 IC3001-78

PB 0.28 Vp-p
10mV/10µsec/DIV

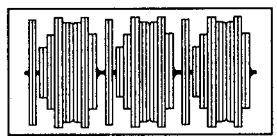
– DSP –

WF10 IC3001-58



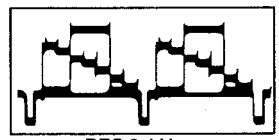
REC 0.42 Vp-p
PB 0.44 Vp-p
10mV/10µsec/DIV

WF11 IC3001-98



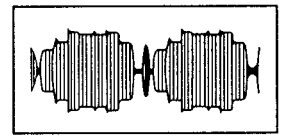
REC 0.16 Vp-p
5mV/10µsec/DIV

WF12 IC3001-52



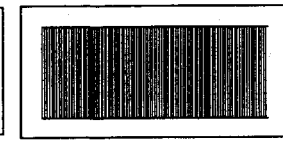
REC 2.4 Vp-p
PB 2.0 Vp-p
50mV/10µsec/DIV

WF13 IC3001-55



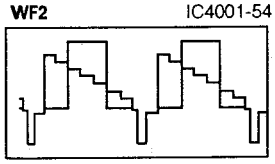
PB 0.5 Vp-p
10mV/10µsec/DIV

WF1 IC5202-2



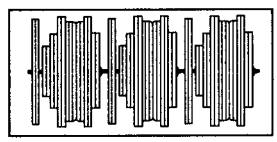
EE 0.1 Vp-p
10mV/10µsec/DIV

WF2 IC4001-54



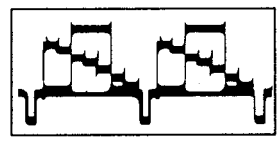
EE 0.88 Vp-p
20mV/10µsec/DIV

WF3 IC4001-53



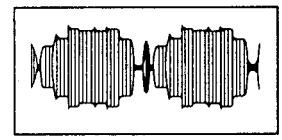
EE 0.34 Vp-p
10mV/10µsec/DIV

WF4 IC4003-15



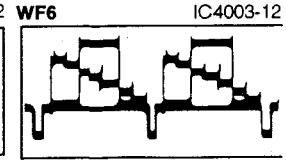
EE 0.84 Vp-p
20mV/10µsec/DIV

WF5 IC4003-2



EE 0.5 Vp-p
10mV/10µsec/DIV

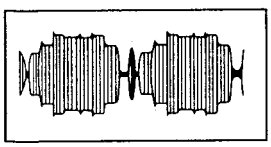
WF6 IC4003-12



EE 1.3 Vp-p
0.1V/10µsec/DIV

– CCD –

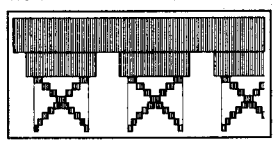
WF7 IC4003-5



EE 0.65 Vp-p
0.1V/10µsec/DIV

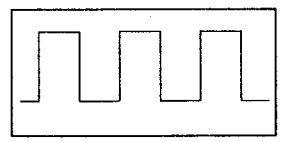
– CPU –

WF1 Q5301-B



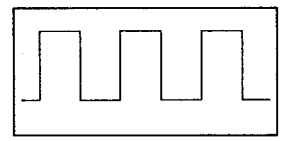
EE 0.8 Vp-p
10mV/10µsec/DIV

WF1 IC101-83



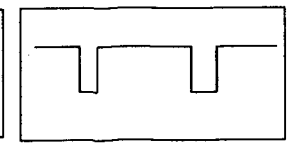
REC/PB 3.2 Vp-p
0.1V/0.5msec/DIV

WF2 IC101-85



REC/PB 3.2 Vp-p
0.1V/50µsec/DIV

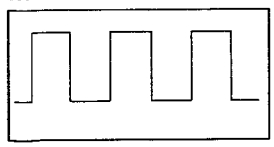
WF3 IC101-87



REC/PB 3.2 Vp-p
0.1V/5msec/DIV

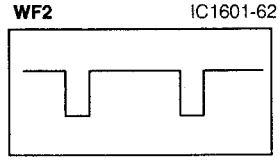
– MECHA MDA–

WF1 IC1601-29



REC/PB 3.2 Vp-p
0.1V/0.1msec/DIV

WF2 IC1601-62



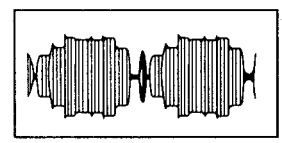
REC/PB 3.2 Vp-p
0.1V/5msec/DIV

– MONITOR –

WF1 IC7601-59

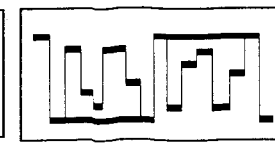
EE 1.2 Vp-p
20mV/10µsec/DIV

WF2 IC7601-63



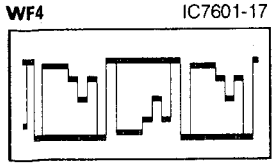
EE 0.64 Vp-p
20mV/10µsec/DIV

WF3 IC7601-18



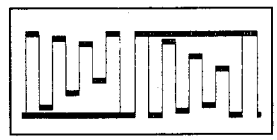
EE 3.6 Vp-p
0.1V/10µsec/DIV

WF4 IC7601-17



EE 3.7 Vp-p
0.1V/10µsec/DIV

WF5 IC7601-16



EE 4.0 Vp-p
0.1V/10µsec/DIV

4.29 VOLTAGE CHARTS

<CPU>

MODE PIN NO.	REC	PLAY
IC101		
1	3.2	3.2
2	0	0
3	3.2	3.2
4	0	0
5	3.2	3.2
6	3.2	3.2
7	3.2	3.2
8	3.2	3.3
9	0	0
10	0	0
11	0	0
12	0	0
13	0	0
14	2.3	2.2
15	3.2	3.2
16	2.3	2.8
17	2.3	2.8
18	1.7	0.5
19	0	0
20	1.6	0.5
21	1.6	0.5
22	1.6	0.5
23	1.6	0.5
24	1.6	0.8
25	1.6	0.6
26	1.6	0.7
27	1.6	0.5
28	1.6	0.4
29	1.6	0.4
30	1.6	0.4
31	1.6	0.4
32	1.6	0.5
33	1.6	0.4
34	1.6	0.4
35	1.6	0.5
36	3.2	3.2
37	0	0
38	0	0
39	3.2	3.2
40	3.2	3.2
41	3.2	3.2
42	0	0
43	2.0	2.0
44	2.0	2.0
45	3.2	3.2
46	0	0
47	1.6	1.6
48	1.6	1.6
49	0	0
50	3.2	3.2
51	1.5	1.5
52	1.4	1.4
53	1.5	1.0
54	0	0
55	0	0
56	3.1	3.2
57	1.6	1.6
58	0	0
59	0	0
60	0	3.2
61	3.2	3.2
62	3.2	3.2
63	0	0
64	3.2	3.2
65	3.2	3.2
66	3.2	3.2
67	0	0
68	3.0	3.0
69	0	0
70	0	0
71	0	0
72	3.2	3.2
73	0	0
74	3.2	3.2
75	3.2	3.2
76	0	0
77	0	0
78	-	-

MODE PIN NO.	REC	PLAY
79	0.7	1.6
80	3.2	0
81	3.2	2.8
82	0	2.8
83	1.6	1.6
84	0	0
85	1.6	1.6
86	1.9	1.9
87	3.0	3.0
88	3.2	0
89	0.9	0.9
90	0	0
91	0	0
92	3.2	3.2
93	1.5	0.5
94	1.9	2.5
95	2.1	2.1
96	0	0
97	3.0	2.8
98	0	0
99	1.6	1.6
100	1.9	3.1
101	1.1	3.2
102	0	3.2
103	2.9	2.6
104	3.3	3.2
105	2.9	2.7
106	1.3	2.3
107	0	1.2
108	3.2	3.2
109	3.2	3.2
110	0	0
111	3.2	3.2
112	0	0
113	2.0	0
114	3.2	3.2
115	3.2	0
116	3.2	1.2
117	1.6	1.2
118	0	0
119	3.2	0
120	3.2	3.2
121	0	0
122	0.4	1.1
123	3.2	1.2
124	2.5	2.8
125	3.0	3.2
126	3.2	3.2
127	-	3.2
128	0	1.2
129	-	1.5
130	1.6	1.5
131	1.6	1.5
132	1.2	1.1
133	1.6	1.2
134	2.9	2.9
135	3.2	0
136	1.6	1.6
137	3.2	1.2
138	1.6	1.3
139	1.5	1.5
140	0	0
141	0	0
142	0	0
143	3.2	3.2
144	0	0
IC102		
1	3.3	3.3
2	0	0
3	6.7	6.7
IC103		
1	0.9	0
2	0	0
3	3.2	3.2
4	3.2	3.2
IC104		
1	0	0
2	2.9	2.9
3	0	1.4

MODE PIN NO.	REC	PLAY
4	0	0
5	0	0
6	0.4	0.5
7	0.7	0.7
8	3.1	3.2
IC105		
1	3.2	3.2
2	1.4	1.5
3	3.2	3.2
4	-	0
5	1.2	1.1
6	2.9	2.9
7	3.2	3.2
8	3.2	3.2
IC108		
1	0	0
2	0	0
3	0	0
4	0	0
5	3.1	3.1
6	0	0
7	0	0
8	3.2	3.2
9	2.9	2.9
10	0	1.3
11	0.4	1.3
12	3.2	3.2
13	3.2	3.3
14	0	0
15	0	0
16	3.1	2.9
17	3.2	3.2
18	3.2	3.2
19	3.2	3.3
20	3.2	3.2
21	3.0	2.8
22	0	0
23	3.3	3.2
24	0	0
25	4.9	0
26	0	4.9
27	2.5	2.5
28	0	4.9
29	4.9	4.9
30	4.9	5.0
31	0	0
32	4.9	0
33	0	0
34	0	0
35	0	0
36	0	0
37	4.9	0
38	0	0
39	0	0
40	2.9	0
41	1.6	3.1
42	2.9	0
43	4.9	5.0
44	0	3.2
45	0	2.9
46	0	0.9
47	0	1.3
48	2.9	3.2
IC109		
1	2.9	2.9
2	2.3	2.3
3	1.2	1.3
4	3.2	3.2
5	3.2	3.2
6	0	0
7	1.2	1.2
8	1.2	1.2
9	0	0
10	0	0
11	0	0
12	0	0
13	0	0
14	0	0
15	0	0

MODE PIN NO.	REC	PLAY
16	0	0
17	0	0
18	0	0
19	3.0	3.1
20	2.9	2.9
IC110		
1	0	0
2	0	0
3	3.2	3.2
4	0	0
5	0	0
6	3.2	3.2
7	0	0
8	3.2	3.2
9	3.2	3.2
10	0	0
11	0	0
12	3.2	3.2
13	3.2	3.2
14	3.2	3.2
IC111		
1	3.2	3.0
2	3.2	3.2
3	3.2	3.3
4	3.2	3.3
5	1.2	1.0
6	1.2	1.2
7	0	0
8	0	0
9	0	0
10	0	0
11	2.9	3.0
12	2.9	3.0
13	0.7	3.2
14	3.2	3.2
IC112		
1	1.3	0.7
2	3.2	3.2
3	0	0
4	0	0
5	1.2	1.2
6	1.2	1.4
7	0	0
8	3.2	3.2
Q101		
E	6.7	6.7
C	6.7	6.7
B	5.9	5.9
Q102		
E	0	0
C	0	0
B	3.3	3.3
Q107		
E	0	0
C	2.6	2.9
B	0	0
Q108		
E	0	0
C	0	4.9
B	0.6	0
Q109		
E	0	0
C	6.3	6.3
B	0	0
Q110		
E	6.7	6.7
C	0	-3.1
B	6.7	6.7
Q111		
E	0	0
C	0	0
B	4.9	4.9
Q112		
E	4.9	4.9
C	4.9	4.9
B	0	0
Q113		
E	3.3	3.3
C	0	-7.8
B	3.3	3.3

<CTL AMP>

MODE PIN NO.	REC	PLAY
IC1201		
1	1.9	1.9
2	3.2	0
3	2.0	0
4	0	0
5	0.7	1.8
6	0.5	1.7
7	0	0
8	1.6	1.7
9	1.7	1.7
10	2.0	1.7
11	0	0
12	1.4	0.9
13	2.2	3.2
14	3.2	3.2

<MECHA MDA>

MODE PIN NO.	REC	PLAY
IC1601		
1	0	0
2	1.8	1.8
3	6.7	6.7
4	1.8	1.8
5	0	0
6	4.1	4.1
7	1.8	1.8
8	2.0	1.8
9	0	1.6
10	0	0
11	1.1	0.9
12	6.7	6.7
13	1.9	2.0
14	0.8	0.8
15	1.1	0.9
16	0	0.9
17	0.9	0.9
18	1.7	1.7
19	0.9	0.9
20	1.4	1.0
21	1.4	1.4
22	1.3	1.4
23	2.5	2.4
24	2.4	2.4
25	2.5	2.5
26	2.0	2.5
27	2.5	2.5
28	2.5	2.5
29	1.6	1.6
30	2.5	2.5
31	-	2.5
32	-	2.5
33	4.9	4.9
34	0.9	0.9
35	0.6	0.6
36	0.5	0.5
37	1.2	-
38	1.4	1.4
39	4.9	4.9
40	0	0
41	0.6	1.5
42	2.9	2.9
43	0	0
44	1.2	1.6
45	3.2	3.2
46	0	0
47	4.9	5.0
48	4.9	4.9
49	0	0
50	-	-
51	0	0
52	0.7	0.5
53	1.5	1.5
54	1.4	0.9
55	0.5	0.5
56	2.8	2.8
57	2.1	2.1
58	0	0

MODE PIN NO.	REC	PLAY
59	0.7	0.7
60	0	0
61	2.5	2.5
62	3.1	3.1
63	2.0	2.0
64	2.5	2.5
65	2.5	2.4
66	2.5	2.5
67	2.4	2.4
68	1.6	1.6
69	0	0
70	1.8	1.8
71	1.8	1.8
72	1.8	1.8
73	1.8	1.8
74	2.4	2.4
75	2.5	2.4
76	2.4	2.4
77	0.7	0.7
78	6.3	6.3
79	6.3	6.3
80	6.3	6.3
QA1601		
1	0	
2	0	0
3	0	0
4	0	0
5	0	0
6	0	0
7	0	0
8	0	0
9	0	1.8
10	1.8	1.8
11	6.4	6.3
12	1.8	1.8
13	6.3	6.3
14	1.8	1.8
15	6.4	6.4
16	6.7	6.7
QA1602		
1	0	0
2	0	0
3	0	0
4	0	0
5	0	0
6	0	0
7	0	0
8	0	0
9	0	1.4
10	0.8	0.8
11	1.4	1.0
12	0.9	0.8
13	1.4	1.4
14	0.9	0.8
15	1.4	1.3
16	1.8	1.7

<IR>

MODE PIN NO.	REC	PLAY
IC1801		
1	3.0	3.0
2	0	0
3	4.9	4.9
IC1802		
1	0	2.0
2	0	2.0
3	2.0	2.0
4	0	0
5	2.0	2.0
6	2.0	2.0
7	1.7	1.7
8	4.9	4.9
Q1801		
E	0	0
C	3.9	4.2
B	-	-

MODE PIN NO.	REC	PLAY
Q1802		
E	0	0
C	0	2.2
B	0.6	0

<Y/C & AUDIO>

MODE PIN NO.	REC	PLAY
IC2071		
1	0	0
2	0	0
3	0	0
4	0	0
5	4.9	4.8
6	0	0
7	1.8	1.8
8	0	0
9	0	0
10	0	1.7
11	1.8	1.8
12	0	0
13	0	0
14	-	-
IC3001		
1	2.5	2.5
2	2.5	2.5
3	2.3	0
4	0	2.4
5	0	0
6	2.4	0
7	2.4	2.4
8	2.4	2.5
9	0	2.5
10	2.4	2.4
11	0	2.4
12	4.9	4.9
13	1.8	1.5
14	1.8	1.5
15	2.6	2.9
16	1.8	0.8
17	0	0.6
18	2.3	2.1
19	3.0	3.1
20	2.7	2.8
21	2.2	2.2
22	2.3	2.0
23	3.0	3.1
24	2.1	2.1
25	1.4	1.4
26	2.1	2.1
27	0	0
28	2.8	2.8
29	1.9	1.9
30	2.8	2.8
31	2.7	2.7
32	0	0
33	0	0
34	0	0
35	3.0	3.0
36	4.9	4.9
37	4.9	4.8
38	4.8	4.9
39	3.1	3.2
40	4.9	4.9
41	4.9	4.9
42	1.9	1.9
43	4.9	4.9
44	2.6	2.6
45	0	0
46	1.9	1.8
47	0	0
48	0	0
49	0	0
50	0.4	0
51	0	0
52	2.4	2.4
53	2.8	2.8

MODE PIN NO.	REC	PLAY
54	1.9	1.9
55	2.1	2.1
56	2.7	2.7
57	4.8	4.9
58	3.1	3.0
59	3.3	3.3
60	2.1	2.1
61	4.8	4.8
62	3.2	3.2
63	3.2	3.2
64	0	0
65	0	0
66	4.9	4.9
67	4.9	4.9
68	0	0
69	2.8	2.8
70	2.6	2.7
71	2.1	2.1
72	2.3	2.2
73	1.6	1.7
74	2.6	1.1
75	1.8	2.0
76	2.4	2.4
77	0	0
78	2.7	2.8
79	0	0
80	0	0
81	0	2.5
82	1.2	1.2
83	2.4	2.4
84	4.9	4.9
85	0	0
86	0	0
87	0	0
88	0	0
89	0	0
90	4.9	4.9
91	0	0
92	2.2	4.3
93	0	0
94	0	0
95	2.8	2.8
96	5.0	5.0
97	1.1	1.1
98	2.3	1.1
99	0	0
100	2.5	2.5
IC3101		
1	2.4	2.5
2	0	4.9
3	2.5	2.4
4	0	0
5	2.5	2.5
6	4.9	4.9
7	1.7	1.7
8	0	0
IC3102		
1	0	1.8
2	0	4.9
3	2.1	1.9
4	0	0
5	1.0	1.8
6	4.9	4.9
7	1.0	1.1
8	0	0
IC3103		
1	-	-
2	-	-
3	-	-
4	-	-
5	-	-
6	-	-
7	-	-
8	-	-
IC3201		
1	1.9	2.0
2	0.6	4.3
3	3.3	3.3
4	3.3	3.3

MODE PIN NO.	REC	PLAY
5	4.9	4.9
6	2.1	2.2
7	1.9	2.0
8	4.9	4.9
9	1.4	1.4
10	2.8	2.8
11	2.8	2.8
12	2.8	0
13	0	0
14	2.8	2.8
15	2.8	0
16	1.9	2.0
17	1.9	2.0
18	0	2.0
IC3202		
1	5.0	5.0
2	0	0
3	1.2	1.2
4	5.0	4.9
5	6.6	6.6
IC3251		
1	2.3	2.2
2	0	0
3	0	2.3
4	2.4	1.0
5	2.8	0
6	0.5	0.6
7	4.8	0.
8	2.8	0.8
Q2001		
E	5.0	5.0
C	4.8	2.5
B	4.2	5.0
Q2002		
E	4.8	2.2
C	4.7	0
B	4.1	2.2
Q2003		
E	0	0
C	0	5.0
B	0.6	0
Q2004		
E	0	0
C	4.5	0
B	0	0
Q2005		
E	0	0
C	0	1.9
B	3.8	0
Q2006		
E	0	0
C	3.9	0
B	0	4.9
Q2007		
1	-12.9	0
2	-18.3	0.7
3	0	0
4	-12.5	0
5	-15.5	0.7
6	0	0
Q2008		
E	4.9	4.8
C	-17.4	4.8
B	4.8	0
Q2009		
E	0	0
C	4.9	0
B	0	4.9
Q2011		
E	0	0
C	3.8	3.7
B	1.0	0
Q2012		
E	0	0
C	0	0
B	3.8	3.7

MODE PIN NO.	REC	PLAY
Q2061		
E	0	0
C	0	0
B	0.6	0.6
Q2062		
E	1.8	1.8
C	4.8	4.8
B	2.4	2.3
Q3002		
E	0	0
C	8.7	0
B	0	4.6
Q3004		
E	0	0
C	0	2.7
B	4.8	0
Q3005		
E	0	0
C	0	4.6
B	4.8	0
Q3006		
E	1.7	1.8
C	0	0
B	1.1	1.1
Q3008		
1	1.1	2.3
2	1.7	0
3	4.8	4.9
4	1.1	2.2
5	0	2.9
6	4.9	4.9
Q3009		
E	-	-
B	-	-
C	-	-
Q3011		
E	1.6	3.6
C	4.8	4.9
B	2.2	4.3
Q3012		
E	-	-
C	-	-
B	-	-
Q3101		
E	4.9	4.9
C	0	4.8
B	4.9	0
Q3102		
1	0.9	0.9
2	1.5	1.5
3	2.8	2.7
4	1.0	1.0
5	1.5	1.6
6	4.9	4.9
Q3103		
E	2.2	2.1
C	4.9	4.9
B	2.8	2.7
Q3104		
1	2.2	2.1
2	2.8	2.7
3	4.9	4.9
4	1.5	1.5
5	2.2	2.1
6	4.9	4.9
Q3105		
1	2.1	2.1
2	1.5	1.5
3	5.0	5.0
4	2.8	2.7
5	2.1	2.1
6	5.0	5.0
Q3106		
1	1.8	1.8
2	1.2	1.1
3	4.9	4.9
4	1.1	1.1
5	1.7	1.7
6	0	0

MODE PIN NO.	REC	PLAY
Q3107		
E	1.7	1.7
C	1.7	0
B	1.1	4.8
Q3201		
1	0	2.1
2	0	0.7
3	4.8	4.9
4	2.8	2.1
5	3.4	2.6
6	4.8	4.8
Q3202		
1	0	2.7
2	2.2	2.1
3	0	0
4	1.7	1.7
5	1.1	1.1
6	0	0
Q3203		
1	1.9	1.6
2	1.3	0
3	4.1	4.1
4	1.3	1.0
5	1.9	1.6
6	0	0
Q3204		
E	0	0
C	0	0
B	0.6	0.7
Q3205		
1	1.7	1.1
2	0	0
3	4.8	4.9
4	1.7	1.1
5	0	0
6	4.9	4.9
Q3206		
E	3.4	0
C	3.4	2.7
B	4.0	0
Q3207		
E	0	0
C	2.0	1.6
B	0	0
Q3208		
E	0	0
C	0	0
B	4.5	4.5
Q3209		
E	1.2	1.2
C	0	0
B	0.6	0.7
Q3210		
1	0.7	4.8
2	1.2	4.7
3	0.7	4.8
4	0	4.3
5	1.2	0
6	0.7	4.3
Q3211		
E	0	0
C	5.0	4.9
B	0	0
Q3212		
E	0	0
C	9.4	10.3
B	0	0
Q3213		
E	3.4	0.7
C	3.4	0.7
B	4.0	1.4

<SPEAKER>

MODE PIN NO.	REC	PLAY
IC2401		
1	1.6	1.6
2	1.7	1.7
3	0	0
4	1.7	1.7
5	1.7	1.7
6	1.7	1.7
7	1.8	1.7
8	1.7	1.7
9	0	2.9
10	3.0	3.0
11	0	0
12	1.7	1.7
13	1.7	1.7
14	1.7	1.7
15	1.7	1.7
16	3.4	3.4
17	0	0
18	1.7	1.6
19	1.6	1.7
20	3.4	3.4
Q2401		
E	0	0
C	3.0	3.1
B	0	0
Q2402		
E	-	-
C	-	-
B	-	-
Q2403		
E	3.3	3.4
C	6.6	6.6
B	4.6	4.6
Q2404		
E	3.4	3.4
C	4.9	5.0
B	4.0	4.0
Q2408		
E	0	0
C	0	0
B	0.6	0.7

<PRE/REC>

MODE PIN NO.	REC	PLAY
IC3501		
1	0	0
2	0	0
3	2.3	2.4
4	0	3.2
5	4.5	2.3
6	1.5	0
7	1.8	2.9
8	2.3	2.4
9	0	2.4
10	3.3	3.3
11	0	0
12	0	0
13	0	0.8
14	0	0.8
15	0	0
16	1.3	1.9
17	3.1	3.6
18	1.4	0
19	0	0
20	4.0	0
21	-	0.5
22	4.1	0
23	0	0.6
24	0	0.7
25	0	0
26	0	0.6
27	4.6	2.4
28	-	0.5
29	4.1	0
30	4.8	0
31	1.9	0
32	1.9	0
33	-	0.5
34	4.7	2.4
35	0	0.6
36	1.8	0
37	0	0.7
38	0	0.6
39	4.1	0
40	-	0.6
41	4.1	0
42	3.2	3.1
43	0	0
44	4.9	4.9
45	4.9	4.9
46	2.4	3.7
47	1.5	2.5
48	1.5	2.5
Q3501		
1	4.1	0
2	3.6	0.6
3	4.1	0
4	4.1	0
5	-	0.6
6	4.1	0
Q3502		
1	4.1	0
2	-	0.5
3	4.1	0
4	4.1	0
5	-	0.6
6	4.1	0
Q3503		
1	4.1	0
2	-	0
3	4.9	4.9
4	4.1	0
5	4.7	0
6	4.8	4.9
Q3506		
E	0	0
C	0	0
B	0	4.8
Q3507		
E	0	0
C	1.1	0
B	4.9	4.9
Q3508		
E	0	0
C	0	0
B	0.9	0.9
Q3509		
E	1.8	3.1
C	4.9	4.9
B	2.4	3.7
Q3901		
1	0	3.7
2	0	0
3	2.7	0
4	0	1.6
5	0	0
6	2.7	0
Q3903		
E	0	0
C	0	3.7
B	3.2	0
Q3904		
E	3.2	3.2
C	2.9	0
B	0	3.2
Q3905		
E	0	0
C	2.7	0
B	0	4.8

<DSP>

MODE PIN NO.	REC	PLAY
IC4001		
1	2.3	2.3
2	0	0
3	0	0
4	1.6	1.6
5	0	0
6	0	0
7	0.7	0.7
8	1.2	1.2
9	0	0
10	0	0
11	0	0
12	3.2	3.2
13	3.2	3.2
14	0	0
15	0	0
16	3.1	3.2
17	3.2	3.2
18	3.2	3.2
19	0	0
20	1.6	0.7
21	1.7	0.6
22	1.6	0.5
23	1.6	0.6
24	1.7	0.7
25	1.6	0.6
26	1.6	0.5
27	1.3	0.5
28	1.6	0.7
29	1.5	0.9
30	0	0
31	1.5	0.9
32	1.5	0.9
33	1.5	0.7
34	1.4	0.7
35	1.4	0.6
36	1.4	0.6
37	2.3	2.3
38	0	0
39	2.4	2.4
40	0	0
41	3.2	3.2
42	0	0
43	1.5	3.3
44	1.5	0
45	1.5	2.8
46	1.5	0
47	1.4	1.4
48	1.1	1.1
49	1.4	0
50	1.4	1.4
51	1.1	1.1
52	1.4	1.4
53	2.9	2.9
54	2.7	2.5
55	0	0
56	1.2	1.3
57	1.2	1.3
58	1.2	2.0
59	1.6	0.9
60	1.2	2.7
61	1.2	2.7
62	1.0	0
63	0.8	0
64	0.9	0
65	2.3	2.3
66	0	0
67	1.5	2.7
68	1.5	0
69	0.9	0
70	1.6	0.4
71	1.5	0.4
72	1.3	0.4
73	2.3	2.3
74	1.5	1.7
75	1.6	1.7
76	1.6	1.7
77	1.6	1.7
78	1.6	1.7
79	1.6	1.6
80	1.6	1.7
81	0	0
82	1.6	1.7
83	1.6	0.5
84	1.6	0
85	3.1	0
86	0	0
87	2.7	2.7
88	0	0
89	0	0
90	3.2	0
91	0	0
92	2.6	2.7
93	0	0
94	3.2	0
95	0.8	0
96	0.8	0
97	1.0	0
98	1.3	0
99	0.8	0
100	0.9	0
101	1.0	0
102	0	0
103	1.0	0
104	1.5	1.9
105	1.1	0
106	1.0	0
107	1.0	0
108	1.5	1.6
109	2.3	2.3
110	0	0
111	0.7	0
112	0.8	3.0
113	0.8	3.0
114	2.1	3.0
115	1.0	3.0
116	1.0	3.0
117	0	0
118	1.0	3.0
119	1.3	3.0
120	0	0
121	3.0	0
122	3.2	3.0
123	2.9	3.0
124	1.1	0
125	0	0
126	3.2	3.2
127	0	0
128	0	0
129	1.5	1.6
130	2.9	3.2
131	3.1	3.1
132	3.1	3.1
133	3.2	3.2
134	1.6	1.7
135	1.6	1.7
136	0	3.3
137	2.3	2.3
138	0	0
139	0	0.7
140	0	0
141	0	0
142	0	0
143	0	3.2
144	1.3	1.4
IC4002		
1	3.2	3.2
2	0	0
3	1.2	1.3
4	2.3	2.3
5	3.2	3.2
IC4003		
1	4.8	4.8
2	2.5	2.5
3	0.9	4.8
4	2.2	2.2
5	2.0	1.9
6	4.8	4.8

MODE PIN NO.	REC	PLAY
7	0	0
8	0.8	1.9
9	1.9	1.9
10	0	0
11	0	0
12	2.6	2.4
13	4.8	4.8
14	2.7	2.7
15	1.3	1.2
16	4.8	4.8
IC4005		
1	4.9	4.9
2	0	0
3	1.7	1.3
4	3.3	3.3
5	4.9	4.9
IC4006		
1	0	0
2	0	0
3	1.4	0.9
4	1.4	2.0
5	1.4	1.3
6	1.4	1.3
7	1.0	0
8	1.0	0
9	1.2	2.6
10	1.0	0
11	1.0	0
12	1.2	0
13	1.1	2.6
14	1.2	2.6
15	1.5	1.5
16	0	0
17	2.7	2.7
18	3.1	3.1
19	3.2	3.2
20	0	0
21	3.2	3.2
22	0	2.7
23	2.6	2.6
24	0	0
25	1.5	1.6
26	1.2	2.6
27	1.1	3.0
28	1.2	0
29	1.0	0
30	1.2	0
31	1.2	2.7
32	0.9	0
33	1.0	0
34	1.3	1.3
35	1.5	1.3
36	1.3	1.9
37	1.2	0.7
38	0	0
IC5201		
1	3.1	0
2	2.6	0
3	0	0
4	0	0
5	3.2	3.2
6	0	0
7	1.3	1.4
8	0	0
9	1.6	3.2
10	3.2	3.2
11	1.7	1.5
12	1.3	1.5
13	3.2	3.2
14	0	0
15	2.5	0
16	2.6	0
17	2.5	0
18	3.4	3.2
19	3.2	3.2
20	3.2	3.2
21	3.1	0
22	1.4	0
23	0	0

MODE PIN NO.	REC	PLAY
24	-1.9	14.9
25	0	0
26	0	14.9
27	14.8	14.9
28	-7.6	14.9
29	-8.0	-8.6
30	0	0
31	-7.6	0
32	3.2	0
33	0	0
34	0	0
35	0	0
36	0	0
37	2.9	2.9
38	2.2	1.3
39	3.2	0
40	3.2	3.2
41	0	0
42	3.0	0
43	3.2	3.2
44	2.9	2.9
45	3.1	3.1
46	3.2	3.2
47	3.2	3.2
48	1.4	1.6
IC5202		
1	0	0
2	1.5	0
3	1.4	3.0
4	1.1	3.0
5	1.4	3.0
6	1.4	3.0
7	1.5	3.0
8	1.6	3.0
9	0.6	3.0
10	1.6	3.0
11	1.6	3.0
12	0	0
13	0	0
14	0	0
15	3.0	3.0
16	1.6	1.7
17	1.6	3.2
18	2.6	0
19	2.6	0
20	0	0
21	3.0	3.0
22	0	0
23	1.6	1.6
24	1.7	1.6
25	0.8	0
26	3.0	3.0
27	1.5	1.5
28	1.5	0
29	1.5	0
30	1.5	0
31	3.0	3.0
32	1.1	1.2
33	1.5	1.5
34	1.8	1.9
35	1.2	1.2
36	0	0
37	0	0
38	3.0	3.0
39	0	0
40	0	0
41	3.0	3.0
42	0	0
43	3.2	3.2
44	1.2	2.9
45	1.2	1.0
46	3.0	3.0
47	0	0
48	1.2	0
IC5203		
1	4.9	5.0
2	0	0
3	1.3	1.3
4	3.0	3.0

MODE PIN NO.	REC	PLAY
5	4.9	5.0
Q4001		
E	2.2	2.2
C	4.8	4.8
B	2.8	2.8
Q4002		
E	2.3	2.3
C	4.8	4.8
B	2.9	2.9
Q4005		
E	2.1	1.9
C	4.8	4.8
B	2.7	2.5
Q4006		
E	1.9	1.7
C	4.8	4.8
B	2.5	2.3
Q4007		
E	1.4	1.4
C	4.8	4.8
B	2.0	2.0

<IRIS & AF/ZOOM>

MODE PIN NO.	REC	PLAY
IC4201		
1	4.0	4.0
2	1.7	1.6
3	1.6	1.6
4	0	0
5	2.0	2.0
6	2.0	2.0
7	2.0	2.0
8	6.6	6.6
IC4202		
1	1.5	0
2	1.8	0.5
3	1.8	0
4	4.9	4.9
5	2.0	2.0
6	2.0	2.0
7	4.9	0.5
8	0.6	2.6
9	0.7	2.0
10	0.7	2.0
11	0	0
12	0.4	0.4
13	0.4	0.4
14	1.0	1.0
IC4203		
1	1.7	1.0
2	1.7	1.0
3	0	0
4	1.7	0
5	3.2	3.2
IC4301		
1	0	0
2	2.1	2.1
3	2.6	2.7
4	2.2	2.2
5	1.6	1.6
6	0	0.6
7	3.2	3.0
8	3.2	3.2
9	3.2	3.2
10	0	0
11	2.6	2.6
12	0	0
13	2.9	2.9
14	1.2	0
15	2.6	2.6
16	0	0
IC4501		
1	0	0
2	0	0
3	0	0
4	0	0
5	0	0
6	0	0
7	0	0
8	3.2	3.2
9	6.6	6.6
10	3.0	1.3
11	0	0
12	2.7	1.3
13	6.6	6.6
14	0	3.0
15	0	0
16	6.6	6.6
17	0	0
18	0	0
19	0	0
20	0	0
21	0	0
22	0	0
23	6.6	6.6
24	3.0	0.7
25	0.9	0
26	0	0.5
27	6.6	6.6
28	3.0	0.4
29	0	0
30	2.9	0.7
31	0	0

MODE PIN NO.	REC	PLAY
32	0	0
33	0	0
34	1.3	1.1
35	2.9	3.2
36	1.6	1.6
37	1.5	1.5
38	2.7	2.9
Q4201		
E	0.4	0.4
C	1.4	1.4
B	1.0	1.0
Q4202		
E	6.7	6.7
C	6.6	6.6
B	5.9	5.9
Q4203		
E	0	0
C	0	0
B	3.2	3.2
Q4501		
E	0	0
C	11.1	11.5
B	0	0
Q4502		
E	0	0
C	9.4	11.1
B	0	0

<REGULATOR>

MODE PIN NO.	REC	PLAY
IC6001		
1	4.0	4.0
2	6.9	6.9
3	5.8	5.8
4	0	0
5	1.4	1.4
6	1.2	1.2
7	1.2	1.3
8	5.0	5.0
9	0	0
10	1.8	1.8
11	0	0
12	0	0
13	6.6	6.7
14	0	0
15	1.8	1.8
16	1.2	1.3
17	1.6	1.6
18	6.6	6.7
19	2.5	2.5
20	3.2	3.2
21	3.2	3.2
22	3.2	3.2
23	0	0
24	0.8	0.8
25	1.3	1.3
26	1.3	1.3
27	1.7	1.7
28	1.9	1.8
29	1.0	1.0
30	1.2	1.2
31	1.2	1.2
32	1.6	1.6
33	2.5	2.5
34	4.3	4.3
35	6.0	6.0
36	4.9	4.9
37	6.4	6.4
38	2.4	2.3
39	6.2	6.3
40	6.1	6.2
41	2.4	2.4
42	0	0
43	2.2	2.2
44	6.4	6.5
45	6.6	6.7
46	6.0	6.1

MODE PIN NO.	REC	PLAY
47	2.4	2.4
48	5.7	5.8
IC6002		
1	0	0
2	15.7	15.7
3	12.1	12.1
4	0	0
Q6001		
1	0	0
2	6.0	6.1
3	6.6	6.7
4	5.1	5.0
Q6002		
1	0	0
2	6.4	6.5
3	6.7	6.7
4	1.9	1.8
Q6003		
1	0	0
2	6.3	6.3
3	6.6	6.7
4	3.2	3.2
Q6004		
E	6.6	6.7
C	0	0
B	6.1	6.2
Q6005		
E	4.9	5.0
C	4.9	4.9
B	4.3	4.3
Q6006		
E	0	0
C	0	0
B	0.6	0.6
Q6007		
E	-8.0	-8.8
C	-8.7	-9.1
B	-8.7	-9.1
Q6008		
E	-	-
C	-	-
B	-	-
Q6009		
E	15.0	15.0
C	15.7	15.7
B	15.6	15.6
Q6201		
E	4.9	4.9
C	4.9	4.9
B	4.2	4.2
Q6202		
E	0	0
C	0	0
B	0.6	0.6
Q6203		
E	0	0
C	6.7	6.7
B	0	0

<LCD CTL>

MODE PIN NO.	REC	PLAY
IC7101		
1	2.9	2.9
2	2.9	2.9
3	0	0
4	0.5	0.5
5	4.8	4.8
IC7102		
1	2.9	2.9
2	0.5	0.5
3	0	0
4	0.5	0.5
5	4.8	4.8

<CCD>

MODE PIN NO.	EE
IC5301	
1	-7.6
2	-7.6
3	0
4	0
5	0
6	0
7	12.1
8	14.9
9	0
10	6.2
11	-8.1
12	7.4
13	1.8
14	0
Q5301	
E	11.4
C	14.9
B	12.1

<MONITOR>

MODE PIN NO.	EE
IC7601	
1	2.5
2	2.9
3	2.8
4	4.7
5	3.3
6	4.9
7	2.1
8	3.5
9	3.4
10	0
11	6.1
12	12.1
13	12.1
14	6.2
15	6.2
16	6.2
17	6.2
18	6.2
19	0
20	0
21	0
22	0
23	3.1
24	3.0
25	0
26	0
27	0
28	0
29	2.9
30	1.0
31	1.0
32	0.8
33	3.2
34	0
35	0
36	2.8
37	0.5
38	2.4
39	0
40	3.6
41	0
42	0
43	1.6
44	1.8
45	1.7
46	0
47	0
48	2.4
49	0
50	2.9
51	0
52	3.6
53	3.6
54	3.2
55	3.2
56	2.9
57	0
58	2.9
59	3.2
60	2.5
61	2.8
62	0.5
63	2.8
64	4.1
IC7602	
1	0
2	-14.9
3	0
4	-10.2
5	5.0
IC7603	
1	0
2	3.2
3	0
4	3.3
5	2.9
6	1.9
7	0

MODE PIN NO.	EE
8	3.2
Q7501	
E	0
C	4.9
B	0
Q7502	
E	0
C	5.0
B	0
Q7503	
E	5.0
C	0
B	5.0
Q7504	
E	0
C	5.0
B	0
Q7505	
E	0
C	0
B	0
Q7506	
E	0
C	0
B	0
Q7608	
E	3.3
C	0
B	3.2
Q7609	
E	0.7
C	14.9
B	1.2
Q7610	
E	1.8
C	-14.9
B	1.3
Q7611	
E	1.2
C	10.3
B	1.8
Q7612	
E	1.2
C	-12.5
B	1.3
Q7613	
E	-10.7
C	0
B	-10.1
Q7614	
E	-9.6
C	-14.9
B	-10.1
Q7615	
E	-10.2
C	-2.5
B	-8.6
Q7616	
E	-10.2
C	-14.8
B	-10.6

<C. VF>

MODE PIN NO.	EE
IC7201	
1	2.6
2	0
3	2.8
4	0
5	1.8
6	2.5
7	0.9
8	0
9	0
10	0
11	9.1
12	1.9
13	0
14	1.4
15	1.4
16	2.8
17	2.8
18	0
19	0
20	1.4
21	1.4
22	2.5
23	1.4
24	1.4
25	0
26	0
27	1.4
28	1.4
29	2.8
30	2.8
31	2.6
32	0
33	3.0
34	3.0
35	3.0
36	2.8
37	2.8
38	0
39	2.8
40	0
41	6.0
42	2.1
43	6.0
44	2.2
45	6.0
46	2.2
47	12.1
48	6.0
49	4.9
50	2.6
51	2.6
52	4.1
53	2.4
54	3.1
55	5.1
56	5.1
57	3.6
58	4.9
59	2.5
60	4.9
61	0
62	3.2
63	1.6
64	0
Q7201	
E	2.9
C	4.8
B	3.5

<BL>

MODE PIN NO.	EE
Q7301	
E	0
C	4.7
B	0.5

<B/W VF>

MODE PIN NO.	EE
IC7001	
1	2.1
2	4.9
3	2.0
4	0
5	2.2
6	1.3
7	2.0
8	6
9	4.2
10	0
11	1.9
12	4.5
13	2.8
14	1.7
15	1.8
16	1.6
Q7001	
E	0
C	4.4
B	0.5
Q7002	
E	2.8
C	-24.6
B	2.3
Q7003	
E	-24.0
C	-34.3
B	-24.6

#	⚠	REF No.	PART No.	PART NAME, DESCRIPTION

****

FINAL ASSEMBLY <M2>

⚠	101	LY10122-006C	LOWER CASE ASSY
	101A	LY30885-001C	KNOB(B.RELEASE)
	101B	LY30886-001B	BKT(B.RELEASE)
	101C	QYSLSP2030D	SCREW
	101D	QYSLSP2050D	SCREW,X2
	101E	QYSLSF2055D	SPECIAL SCREW,X2
	101F	LY41380-001A	SPACER(TALLY)
	101G	LY30002-026A	COMPRES. SPRING
	101H	LY41089-001B	INDICATOR(TALLY)
	101J	LY30891-001B	CAP(RCA JACK)
	101K	LY30888-001B	HOLDER(LITHIUM)
	101L	WJM0050-002A	E-SI C WIRE C-F
	101M	LY41140-001B	BRACKET(LITHUM),X2
	101N	LY40081-001A	CAPACITOR
	101P	LY41444-001A	SHEET.A
	102	LY20014-001A	GRIP BELT
	103	LY30018-003A	SPECIAL SCREW
⚠	104	LY30887-001B	CAP(JIG)
	105	QYSLSP2030D	SCREW
	106	LY10124-020A	FRONT COVER ASSY
	106A	LY30893-001B	HOOD
	106B	LY30894-001A	COVER(HOOD)
	106C	LY20349-001B	GUIDE(SHUTTER)
	106D	LY30895-001B	SHUTTER(1)
	106E	LY30896-001A	SHUTTER(2)
	106F	YQ43762	SPECIAL SCREW,X2
	106G	LY41075-001A	SLIDER(SHUTTER)ASSY
	106H	QYSLSF2050Z	SCREW,X2
	106J	QYSLSF2060Z	SCREW,X3
	106K	LY20348-001A	DIAL(SHUTTER)
	106L	LY41081-001C	TORSION SPRING
	106M	LY41128-001B	HOLD(SHUTTER)
	106N	LY40987-002A	MARK
	106P	LY41077-001A	LEVER(1)
	106Q	LY41078-001A	LEVER(2)
	107	LY10131-003A	CASS.COVER(M)ASSY
	107A	LY30907-001A	BUTTON(PUSH)
	107B	LY40076-002A	SPACER,X2
	108	LY10133-002C	UPPER CASE(M)
	109	LY30908-002B	BKT(UPPER)ASSY
	109A	LY30909-001A	BKT(STOPPER)
	109B	LY30910-002B	COVER(STOPPER)
	109C	QYSLSP2030D	SCREW,X2
	109D	QYSLSP2025D	SCREW
	109E	LY41384-001A	EARTH PLATE(B)
	110	LY10129-010B	TOP COVER,SXM515U
		LY10129-011B	TOP COVER,SXM915U
	111	LY20328-001C	COVER(VF)
	112	LY30892-001A	CAP(REAR JACK)
	115	LY30861-002A	MICROPHONE
	116	LY30860-001A	DC LIGHT ASSY
	116A	YQ44266	LAMP
	117	QYSLSF2055D	SPECIAL SCREW
	118	QYSLSF2055D	SPECIAL SCREW,X3
	119	YQ43762-5	SPECIAL SCREW
	120	QYSLSF2055D	SPECIAL SCREW
	121	QYSLSF2055D	SPECIAL SCREW
	122	QYSLSF2055D	SPECIAL SCREW,X2
	123	QYSLSF2055D	SPECIAL SCREW,X2
	124	QYSLSF2090D	SCREW
	125	QYSLSF2055D	SPECIAL SCREW,X2
	126	QYSLSF2055D	SPECIAL SCREW
	127	QYSLSF2055D	SPECIAL SCREW,X2
	128	QYSLSF2090D	SCREW
	129	QYSLSF2055D	SPECIAL SCREW,X2
	130	QYSLSF2055D	SPECIAL SCREW,X2
	131	QYSLSF2055D	SPECIAL SCREW
	132	QYSLSP2030D	SCREW,X2
	133	QYSLSF2090D	SCREW
	134	QYSLSF2055D	SPECIAL SCREW,X2
	135	QYSLSF2055D	SPECIAL SCREW,X3
	136	QYSLSF2055D	SPECIAL SCREW
⚠	137	LY20372-003A	FRAME ASSY
	137A	LY30903-001A	BASE
	137B	LY41090-001B	HOOK
	137C	QYSLSF2060D	SCREW,X2
	137D	QYSLSF2060Z	SCREW,X2
	137E	LY30016-0H2A	SPACER-A
	137F	YQ43810	CONTACT(LIGHT),X2
	137G	WJM0003-003A	E-SI C WIRE C-F
	137H	LY41082-001A	CUSHION(OP),X2
	137J	LY41446-001A	SHEET(EARTH1)
	138	QYSPSTU1725M	SCREW,X2
	139	LY30904-001A	BKT(MECHA)
	140	QYSPSTU1725M	SCREW
	142	LY30018-050A	SPECIAL SCREW,X2
	143	LY41173-001A	SPECIAL SCREW,X2
	144	QYSLSF1750D	SCREW
	145	QYSLSF2055D	SPECIAL SCREW,X2
	146	LY41083-001B	KNOB(LIGHT)
	147	WJT0011-001A	E-CARD WIRE,OP/MAIN CN15
	148	LY30889-001B	CAP(LITHIUM)
	150	LY30514-001E	FRONT FRAME ASSY
	150A	YQ44144-1-1	TAPE GUIDE
	151	YQ44457-3	SCREW,X2
	152	YQ31752H-25	CASSETTE HOUSING ASSY
	152A	LY30175-001C	CASS.COVER INSIDE ASSY
	153	YQ44457-3	SCREW,X4
	154	QYSLSP2025D	SCREW,X2
	155	QYSLSP2030D	SCREW,X4

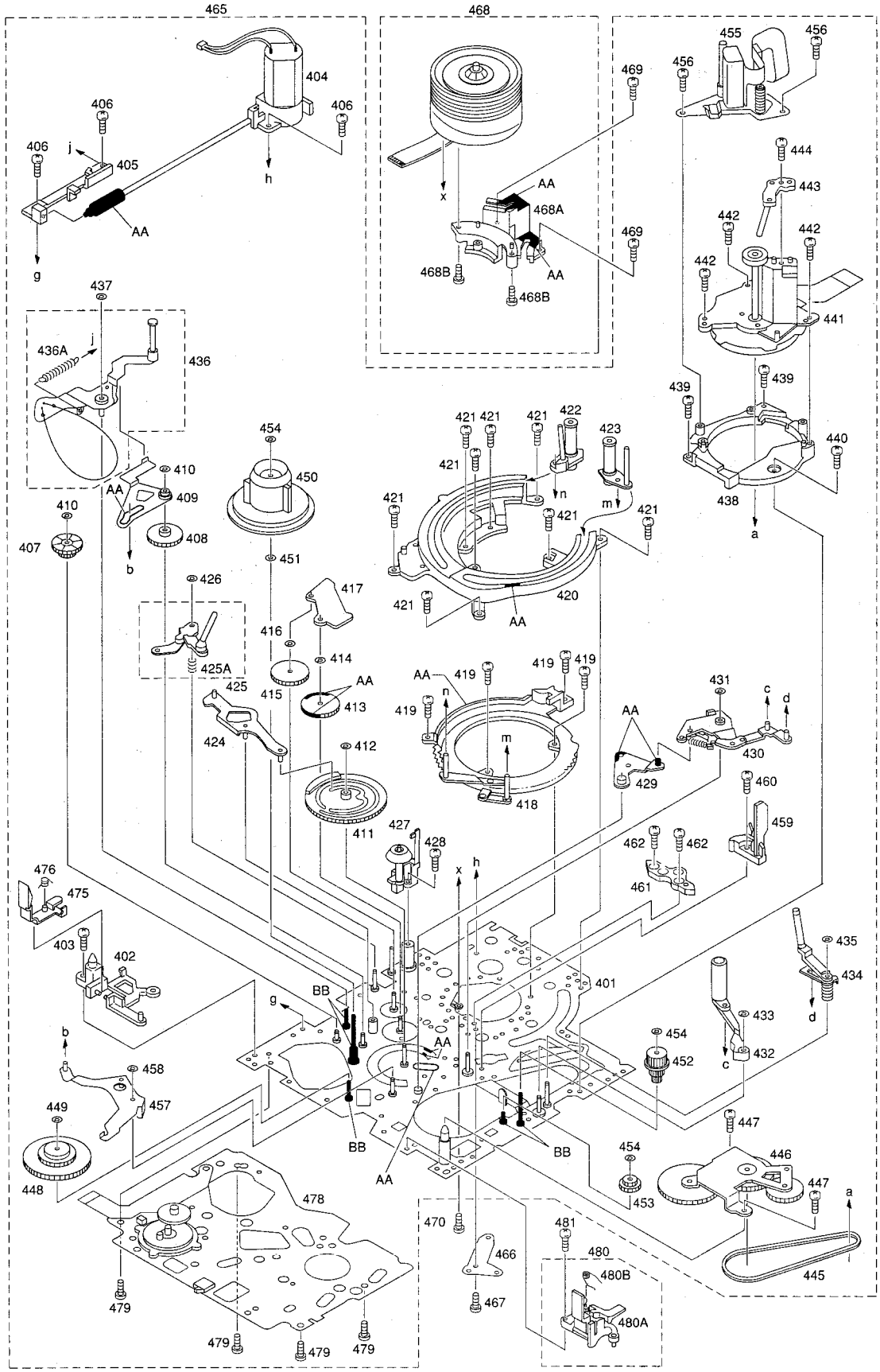
– OPTICAL BLOCK SECTION–

251	LY30948-001A	OP BLOCK ASSY
251A	PTY30948-002	FOCUS MOTOR
251B	PTY30948-001	ZOOM MOTOR
251C	PTY30151-016	SCREW,X9
251D	PTY30948-006	IRIS MOTOR UNIT INCL.FPC
252	LYH40018-001A	CCD BASE ASSY
253	QYSPSGU2080Z	SCREW,X2
254	LY30296-001A	SPACER RUBBER
255	LY40549-001A	OP LPF
256	LY20086-001A	CCD SPACER
257	LY30018-072A	SPECIAL SCREW

5.3 MECHANISM ASSEMBLY <M3>

BEWARE OF BOGUS PARTS

Parts that do not meet specifications may cause trouble in regard to safety and performance. We recommend that genuine JVC parts be used.



Classification	Part No.	Symbol in drawing
Grease	KYODO-SH-P	AA
Oil	YTU94027	BB

NOTE: The section marked in AA and BB, indicate lubrication and greasing areas.

#	⚠	REF No.	PART No.	PART NAME, DESCRIPTION

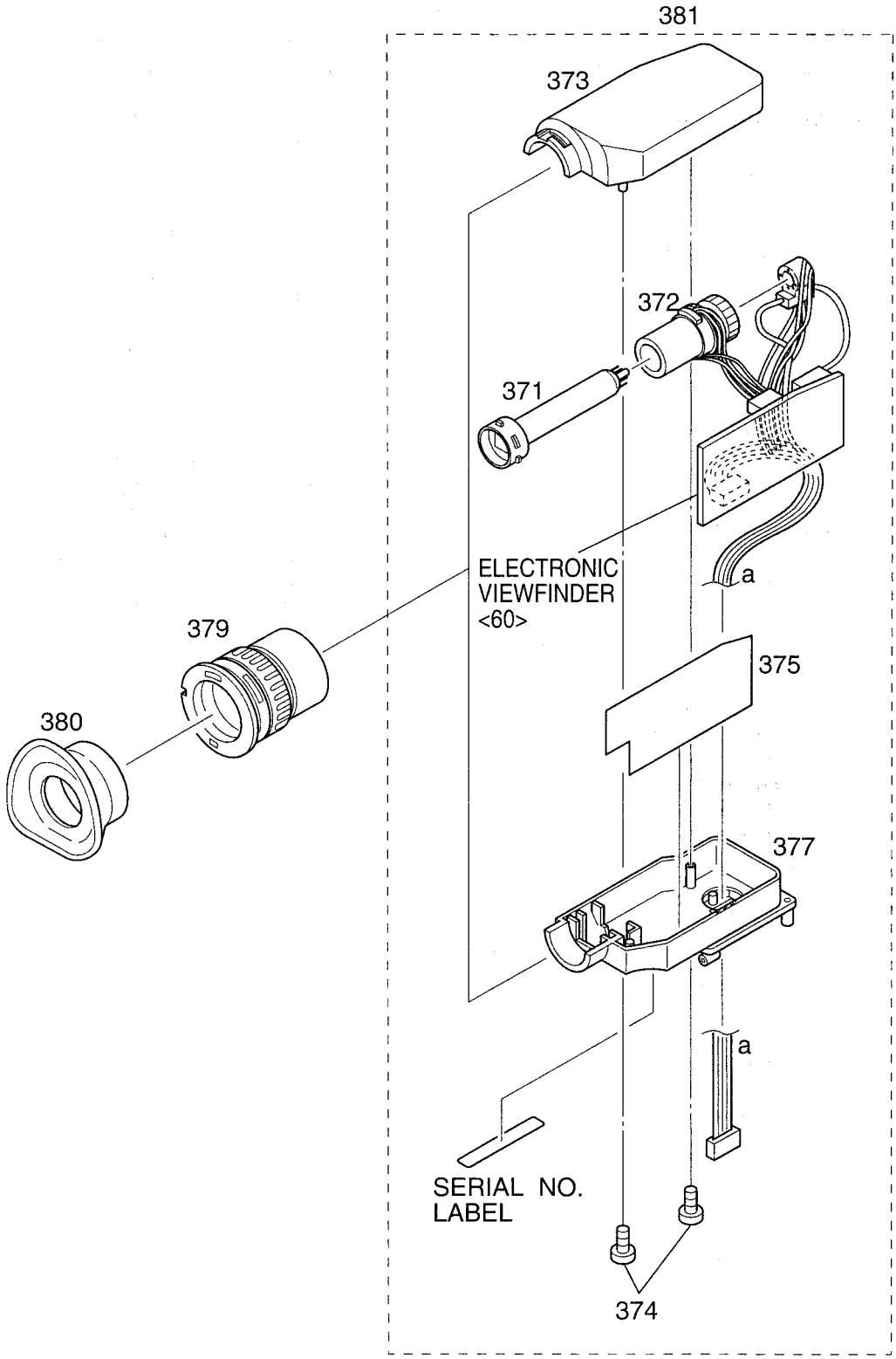
****

MECHANISM ASSEMBLY <M3>

		401	LY20182-001B	MAIN DECK ASSY
		402	YQ32218	C.GUIDE(L)
		403	YQ44457	SCREW
		404	YQ31856A-3	MOTOR BRACKET ASSY
		405	YQ20793	WORM BRACKET
		406	YQ44457	SCREW,X3
		407	YQ31783	WHEEL GEAR
		408	YQ44328	MIDDLE GEAR
		409	YQ43849B	CANCEL LEVER ASSY
		410	PQM30017-27	SLIT WASHER,X2
		411	YQ20827-2-1	CONTROL CAM
		412	LY30015-001A	SLIT WASHER
		413	YQ43853A	LOADING GEAR(T)ASSY
		414	PQM30017-27	SLIT WASHER
		415	YQ43852A	LOADING GEAR(S)ASSY
		416	PQM30017-27	SLIT WASHER
		417	YQ43634	COVER PLATE
		418	YQ43635C-12	LOADING RING ASSY
		419	YQ44457	SCREW,X4
		420	YQ10516-1-11	GUIDE RAIL
		421	YQ44457-5	SCREW,X8
		422	YQ43646A-4	SUPPLY POLE BASE ASSY
		423	YQ43654A-11	TAKE-UP POLE BASE ASSY
		424	YQ44439A-2	DRIVE LEVER ASSY
		425	YQ43663C-7	SLANT ARM ASSY
		425A	YQ43670	TOR.SPRING(S)
		426	PQM30017-27	SLIT WASHER
		427	YQ44436A-3	ROLLER BASE ASSY
		428	YQ44457	SCREW
		429	YQ32230	LINK LEVER
		430	YQ43682B	LINK ARM ASSY
		431	PQM30017-25	SLIT WASHER
		432	LY40018-001A	PINCH ROLLER ARM ASSY
		433	PQM30017-25	SLIT WASHER
		434	YQ44591A	TAKE-UP GUIDE ARM ASSY
		435	PQM30017-27	SLIT WASHER
		436	YQ44199C-9	TENSION ARM ASSY
		436A	LY41515-001A	TENSION SPRING
		437	PQM30017-27	SLIT WASHER
		438	YQ20797-1-3	MOTOR BASE
		439	YQ44457	SCREW,X2
		440	YQ44460	SCREW
		441	YU42078-2	CAPSTAN MOTOR
		442	YQ44304	TAPPING SCREW,X3
		443	YQ43708A-3	SLANT POLE BASE ASSY
		444	YQ44304	TAPPING SCREW
		445	YQ43710	TIMING BELT
		446	YQ43711B-10	CENTER PULLEY UNIT
		447	YQ44457-2	SCREW,X2
		448	YQ43729A-2	SUPPLY CLUCH ASSY
		449	PQM30017-27	SLIT WASHER
		450	YQ31861-1-7	REEL DISC
		451	Q03093-835	WASHER
		452	YQ31787	TAKE-UP GEAR
		453	YQ43737	BRAKE SUB GEAR
		454	PQM30017-27	SLIT WASHER,X3
		455	YQ43738D-17	A/C HEAD UNIT
		456	SPSN1750Z	SCREW,X2

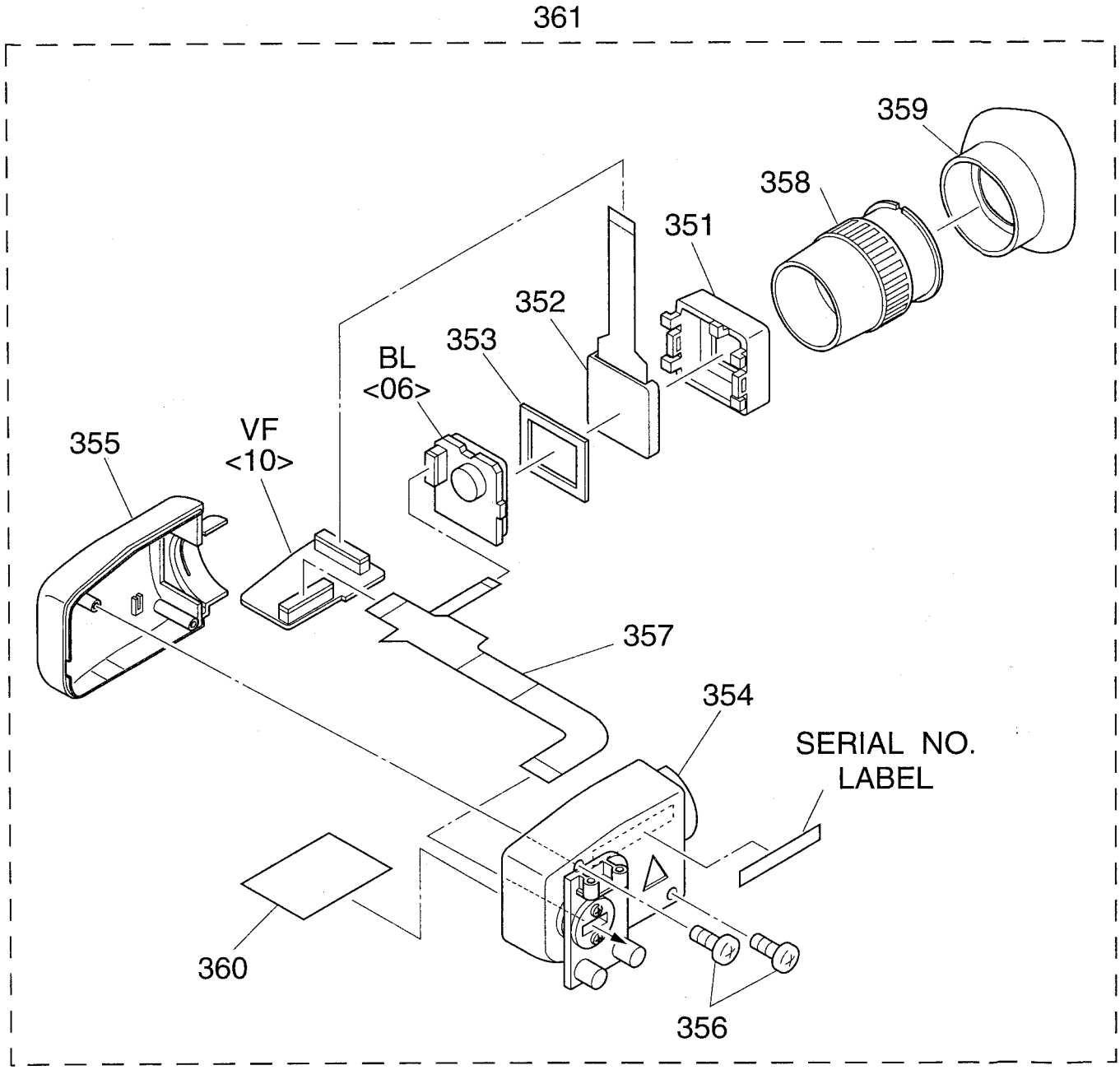
#	⚠	REF No.	PART No.	PART NAME, DESCRIPTION
		457	YQ43743B	EJECT LEVER ASSY
		458	PQM30017-27	SLIT WASHER
		459	YQ31833-1-1	LED GUIDE
		460	YQ44457	SCREW
		461	YQ43818	DRUM SPACER
		462	YQ44457	SCREW,X2
		465	YMA0028A	MECHA(A) ASSY
		466	YU42051	BRUSH
		467	YQ44457-3	SCREW
		468	YDV2090A	DRUM ASSY
		468A	YDM1003-1-5	CATCHER
		468B	QYSPSPU1735M	SCREW,X2
		469	YQ44457	SCREW,X2
		470	SPSH1740Z	SCREW
		475	YQ32219	SW.LEVER(L)
		476	YQ44422-1-1	TORSION SPRING
		478	QSW0751-001	ROTARY ENCODER
		479	YQ44457-2	SCREW,X4
		480	YQ44339A-4	C.GUIDE(R)ASS'Y
		480A	YQ32162-1-3	SW.LEVER(R)
		480B	YQ44340-1-1	TORSION SPRING
		481	YQ44457	SCREW

5.4 ELECTRONIC VIEWFINDER ASSEMBLY <M4> [GR-SXM515]



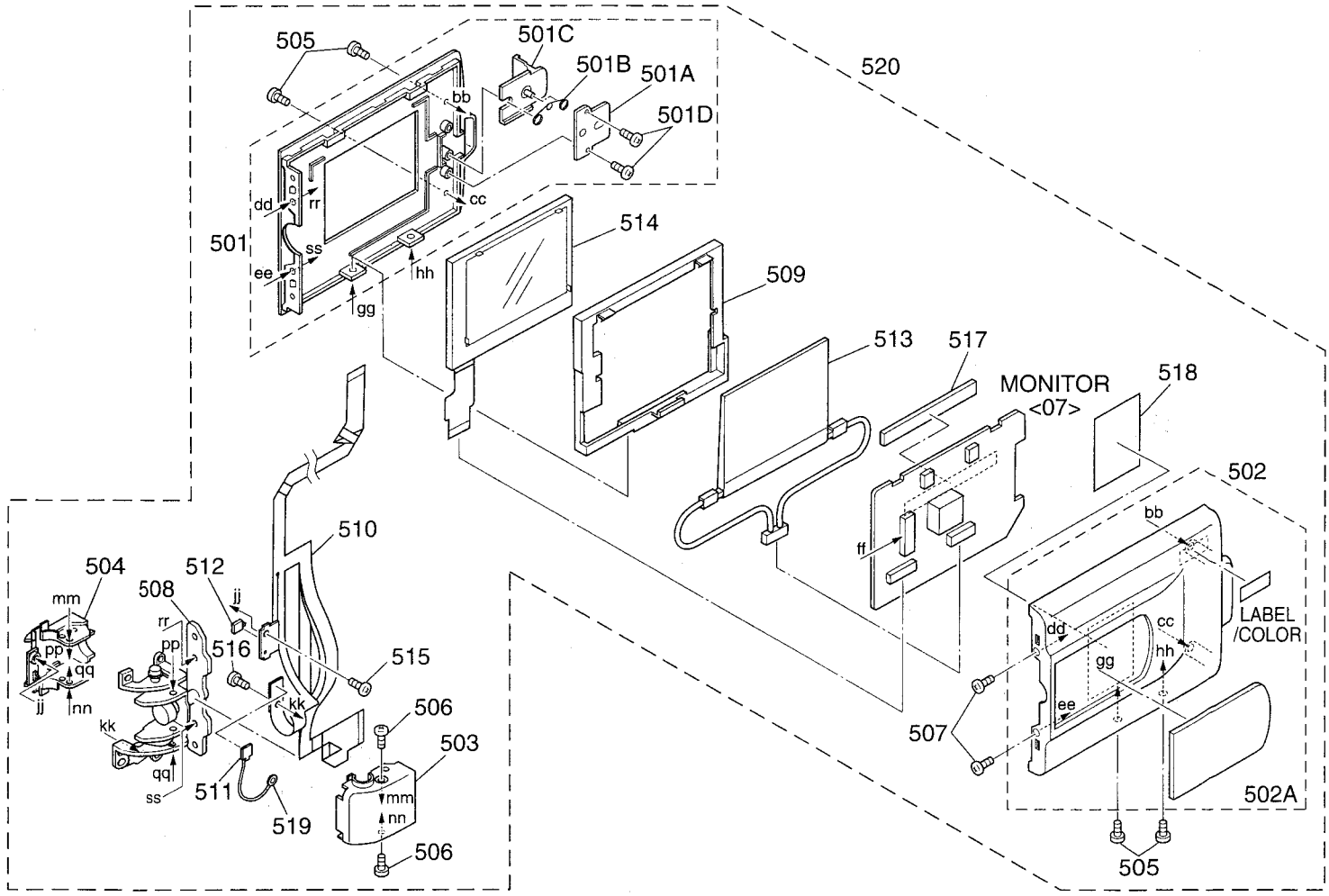
#	⚠	REF No.	PART No.	PART NAME, DESCRIPTION
**********				
			ELECTRONIC VIEWFINDER ASSEMBLY <M4>	
	⚠	371	PEDP0193	CRT
	⚠	372	QQD0026-001	DEFLECTION YOKE
	⚠	373	LY10165-001A	TOP CASE(CASE-L)
		374	QYSPSGU1760M	SCREW,X2
		375	LY41280-001A	SHEET(SHIELD)
		377	PTY20374-011	BOTTOM CASE ASSY
		379	PTY20374-201	LENS ASSY
		380	LY20411-001A	EYE CAP
	⚠	381	LY20374-001A	E.VF ASSY

5.5 ELECTRONIC VIEWFINDER ASSEMBLY <M4> [GR-SXM915]



#	⚠	REF No.	PART No.	PART NAME, DESCRIPTION
**********				
			ELECTRONIC VIEWFINDER ASSEMBLY <M4>	
		351	LY20336-001B	HOLDER(LCD)
		352	LY40127-001A	SPACER(LCD.)
		353	QLD0056-001	LCD MODULE
	⚠	354	LY30914-001C	BOTTOM.CASE ASSY
	⚠	355	LY30915-001C	TOP CASE ASSY
		356	QYSPSGT1760D	SCREW,X2
		357	QAL0136-004	FPC
		358	PTY20307-200	LENS ASSY
		359	PTY20307-201	EYE CAP
		360	LY30016-0M7A	SPACER-A
	⚠	361	LYH20038-002A	EVF ASSY

5.6 MONITOR ASSEMBLY <M5>



#	⚠	REF No.	PART No.	PART NAME, DESCRIPTION

****

MONITOR ASSEMBLY <M5>

	⚠	501	LY20331-001C	U.CASE(MONI)ASSY,SXM515U
	⚠		LY20404-001C	U.CASE(MONI)ASSY,SXM915U
		501A	LY41095-001B	BKT(LOCK)
		501B	LY41096-001B	T.SPRING
		501C	LY30913-001C	BUTTON(LOCK)
		501D	QYSLSF2035D	SCREW,X2
	⚠	502	LY20332-007B	COVER(MONI)ASSY,SXM515U
	⚠		LY20332-008B	COVER(MONI)ASSY,SXM915U
		502A	LY30931-001A	WINDOW
		503	LY20333-001B	COVER(U.HINGE)
		504	LY20334-001B	COVER(L.HINGE)
		505	LY30018-011A	SPECIAL SCREW,X4
		506	QYSLSP2030D	SCREW,X2
		507	LY30018-051A	SPECIAL SCREW,X2
		508	LY20310-001A	T.HINGE ASSY
		509	LY20335-001A	HOLDER(MONI)
		510	QAL0137-003	FPC
		511	NSW0094-001X	DETECT SWITCH
		512	NSW0007-001X	PUSH SWITCH
		513	QLL0054-001	BACK LIGHT,SXM515U
			QLL0058-001	BACK LIGHT,SXM915U
		514	QLD0047-001	LCD MODULE,SXM915U
			QLD0076-001	LCD MODULE,SXM515U
		515	QYSLSF2030D	SCREW
		516	QYSLSP2030D	SCREW
		517	LY30016-0H1A	SPACER-A
		518	LY40559-001A	SHIELD SHEET
		519	QUB450-07VLA2	SIN TWIST WIRE
	⚠	520	LYH20037-004C	MONITOR ASSY,SXM515U
	⚠		LYH20037-005C	MONITOR ASSY,SXM915U

5.7 ELECTRICAL PARTS LIST

# ⚠ REF No.	PART No.	PART NAME, DESCRIPTION
**********		

MAIN BOARD ASSEMBLY <01>

PW	YB10243UU-02	MAIN BOARD ASSY,SXM515U
	YB10243UV-02	MAIN BOARD ASSY,SXM915U
IC101	UPD703008Y-J02	IC
	or UPD70F3008Y-J02	IC
IC102	S-81333HG-KF-X	IC
IC103	IC-PST9327U-X	IC
IC104	RS5C314	IC
IC105	NM25C040LZEM8	IC
	or AT25040N-10SC-X	IC
	or X25040S-2.7-X	IC
IC108	JCY0075	IC
IC109	UPD6462GS-909-X	IC(MICRO C ROM)
IC110	TC74VHC00FT	IC
IC111	MC74HC08ADT	IC(DIGITAL)
IC112	TC7W66F	IC(DIGITAL)
IC1201	BA8400FV	IC
IC1601	BA6865KV	IC
IC1801	PIC-26043S	IR DETECT UNIT
IC1802	BA10358F	IC
IC2071	BA3308F-XE	IC
IC2401	BA7785FS	IC
IC3001	HA118316SF	IC
IC3101	NJM2534V	IC
IC3102	NJM2535V	IC
IC3103	NJM2535V	IC,SXM515U
IC3201	VC2076MP-XE	IC
IC3202	MM1385AN	IC
IC3251	NJM2268V	IC
IC3501	M52385FP	IC
IC4001	JCY0099	IC
IC4002	MM1385RN	IC
IC4003	MM1304AJ	IC
IC4005	MM1385EN	IC
IC4006	TMS4C2973-28-X	IC
IC4201	UPC358G2/5/-W	IC
IC4202	BA10324AFV-XE	IC
IC4203	TC7S08F	IC(DIGITAL)
IC4301	M62367GP	IC
IC4501	UPD16835G3	IC
IC5201	JCY0071A	IC
IC5202	HD49323AF	IC
IC5203	MM1385HN	IC
IC6001	MB3785APFV	IC
IC6002	MM1257AM	IC
IC7101	TC7SET02FU	IC(DIGITAL),SXM915U
IC7102	TC7SET08FU	IC(DIGITAL),SXM915U
Q101	2SA1774/RS/-X	TRANSISTOR
Q102	DTC144EE	TRANSISTOR
	or RN1104	TRANSISTOR
	or UN9213J	TRANSISTOR
Q107	DTC144EE	TRANSISTOR
	or RN1104	TRANSISTOR
	or UN9213J	TRANSISTOR
Q108	2SC4617/QR/-X	TRANSISTOR
Q109	DTC124EE	TRANSISTOR
	or UN9212J	TRANSISTOR
Q110	2SA1774/RS/-X	TRANSISTOR

# ⚠ REF No.	PART No.	PART NAME, DESCRIPTION
Q111	DTC144EE	TRANSISTOR
	or UN9213J	TRANSISTOR
	or RN1104	TRANSISTOR
Q112	DTA124EE	TRANSISTOR
	or UN9112J	TRANSISTOR
Q113	DTA114EE	TRANSISTOR
	or UN9111J	TRANSISTOR
Q1801	RPM-22PB	PHOTO TRANSISTOR
Q1802	2SC4617/QRS/-X	TRANSISTOR
Q2001	2SA1774/QR/-X	TRANSISTOR
Q2002	2SA1774/QR/-X	TRANSISTOR
Q2003	2SC4617/QR/-X	TRANSISTOR
Q2004	2SC4097/QR/-X	TRANSISTOR
Q2005	DTC144EE	TRANSISTOR
	or RN1104	TRANSISTOR
	or UN9213J	TRANSISTOR
Q2006	DTC144EE	TRANSISTOR
	or RN1104	TRANSISTOR
	or UN9213J	TRANSISTOR
Q2007	UMX1N	PAIR TRANSISTOR
Q2008	DTA114EE	TRANSISTOR
	or UN9111J	TRANSISTOR
Q2009	DTC144EE	TRANSISTOR
	or RN1104	TRANSISTOR
	or UN9213J	TRANSISTOR
Q2011	DTC144EE	TRANSISTOR
	or RN1104	TRANSISTOR
	or UN9213J	TRANSISTOR
Q2012	DTC144EE	TRANSISTOR
	or RN1104	TRANSISTOR
	or UN9213J	TRANSISTOR
Q2061	2SC4617/QR/-X	TRANSISTOR
Q2062	2SC4617/QR/-X	TRANSISTOR
Q2401	DTC144EE	TRANSISTOR
	or RN1104	TRANSISTOR
	or UN9213J	TRANSISTOR
Q2402	DTA144EE	TRANSISTOR
	or RN2104	TRANSISTOR
Q2403	2SD1511/R/-X	TRANSISTOR
Q2404	2SC4617/QR/-X	TRANSISTOR
Q2408	2SC4617/QR/-X	TRANSISTOR
Q3002	DTC144EE	TRANSISTOR
	or UN9213J	TRANSISTOR
	or RN1104	TRANSISTOR
Q3004	DTC144EE	TRANSISTOR
	or UN9213J	TRANSISTOR
	or RN1104	TRANSISTOR
Q3005	DTC144EE	TRANSISTOR
	or RN1104	TRANSISTOR
	or UN9213J	TRANSISTOR
Q3006	2SA1774/QR/-X	TRANSISTOR
Q3008	HN1C01FU/G/-X	PAIR TRANSISTOR
Q3009	DTC144EE	TRANSISTOR
	or RN1104	TRANSISTOR
	or UN9213J	TRANSISTOR
Q3011	2SC4617/QR/-X	TRANSISTOR
Q3012	DTC144WE	TRANSISTOR
Q3101	DTA144EE	TRANSISTOR
	or RN2104	TRANSISTOR
Q3102	HN1C01FU/G/-X	PAIR TRANSISTOR
Q3103	2SC4617/QR/-X	TRANSISTOR

# ⚠ REF No.	PART No.	PART NAME, DESCRIPTION
Q3104	HN1C01FU/G/-X	PAIR TRANSISTOR
Q3105	HN1A01FU/G/-X	PAIR TRANSISTOR
Q3106	HN1B01FU/G/-X	PAIR TRANSISTOR
Q3107	2SA1774/QR/-X	TRANSISTOR
Q3201	HN1C01FU/G/-X	PAIR TRANSISTOR
Q3202	HN1A01FU/G/-X	PAIR TRANSISTOR
Q3203	HN1B01FU/G/-X	PAIR TRANSISTOR
Q3204	2SA1774/QR/-X	TRANSISTOR
Q3205	HN1C01FU/G/-X	PAIR TRANSISTOR
Q3206	DTC144EE	TRANSISTOR
	or RN1104	TRANSISTOR
	or UN9213J	TRANSISTOR
Q3207	2SC4617/QR/-X	TRANSISTOR
Q3208	DTC144EE	TRANSISTOR
	or RN1104	TRANSISTOR
	or UN9213J	TRANSISTOR
Q3209	2SA1774/QR/-X	TRANSISTOR
Q3210	HN1C01FU/G/-X	PAIR TRANSISTOR
Q3211	DTC144EE	TRANSISTOR
	or RN1104	TRANSISTOR
	or UN9213J	TRANSISTOR
Q3212	DTC144EE	TRANSISTOR
	or RN1104	TRANSISTOR
	or UN9213J	TRANSISTOR
Q3213	2SC4617/QR/-X	TRANSISTOR
Q3501	HN1C01FU/G/-X	PAIR TRANSISTOR
Q3502	HN1C01FU/G/-X	PAIR TRANSISTOR
Q3503	HN1C01FU/G/-X	PAIR TRANSISTOR
Q3506	DTC144EE	TRANSISTOR
	or RN1104	TRANSISTOR
	or UN9213J	TRANSISTOR
Q3507	DTC144EE	TRANSISTOR
Q3508	2SC4617/QRS/-X	TRANSISTOR
Q3509	2SC4617/QRS/-X	TRANSISTOR
Q3901	HN1C01FU/G/-X	PAIR TRANSISTOR
Q3903	DTC114EE	TRANSISTOR
	or UN9211J	TRANSISTOR
Q3904	DTA114EE	TRANSISTOR
	or UN9111J	TRANSISTOR
Q3905	DTC144EE	TRANSISTOR
	or UN9213J	TRANSISTOR
	or RN1104	TRANSISTOR
Q4001	2SC4617/RS/-X	TRANSISTOR
	or 2SC4738/YG/-X	TRANSISTOR
Q4002	2SC4617/RS/-X	TRANSISTOR
	or 2SC4738/YG/-X	TRANSISTOR
Q4005	2SC4617/RS/-X	TRANSISTOR
	or 2SC4738/YG/-X	TRANSISTOR
Q4006	2SC4617/RS/-X	TRANSISTOR
	or 2SC4738/YG/-X	TRANSISTOR
Q4007	2SC4617/RS/-X	TRANSISTOR
	or 2SC4738/YG/-X	TRANSISTOR
Q4201	2SC4617/QR/-X	TRANSISTOR
	or 2SC4738/YG/-X	TRANSISTOR
Q4202	2SA1577/QR/-X	TRANSISTOR
Q4203	DTC144EE	TRANSISTOR
	or RN1104	TRANSISTOR
	or UN9213J	TRANSISTOR
Q4501	2SC4617/RS/-X	TRANSISTOR
Q4502	2SC4617/RS/-X	TRANSISTOR
Q6001	MPL1	TRANSISTOR

# ⚠ REF No.	PART No.	PART NAME, DESCRIPTION	
Q6002	MPL1	TRANSISTOR	
Q6003	MPL1	TRANSISTOR	
Q6004	2SB1121/ST/-X	TRANSISTOR	
Q6005	2SB1121/ST/-X	TRANSISTOR	
Q6006	2SC4617/QR/-X	TRANSISTOR	
Q6007	2SA1774/QR/-X	TRANSISTOR	
Q6008	2SA1774/QR/-X	TRANSISTOR	
Q6009	2SC4617/QR/-X	TRANSISTOR	
Q6201	2SD1628/FG/-X	TRANSISTOR	
Q6202	2SA1774/QR/-X	TRANSISTOR	
Q6203	2SC4617/QR/-X	TRANSISTOR	
QA1601	BA6254FS	TR ARRAY	
QA1602	BA6254FS	TR ARRAY	
D101	MA8075/M/-X	ZENER DIODE	
D103	1SS355	DIODE	
D104	RB751V-40-X	SB DIODE	
D501	MA8068	ZENER DIODE	
D502	MA8068	ZENER DIODE	
D1801	TLSU1002/LM/-X	LE DIODE	
D3101	DAN222	DIODE	
D3103	DAN222	DIODE	
D3201	DAN222	DIODE	
D3202	DAN222	DIODE	
D3251	MA8068	ZENER DIODE	
D3252	MA8068	ZENER DIODE	
D5201	1SS355	DIODE	
D6001	1SS355	DIODE	
D6002	1SS355	DIODE	
D6003	1SS355	DIODE	
D6004	MA8091/L/-X	ZENER DIODE	
D7101	RB715F	SB DIODE,SXM915U	
⚠ DA101	RB715F	SB DIODE	
DA105	RB717F	SB DIODE	
DA107	DAN222	DIODE	
R101	NRSA63J-104X	MG RESISTOR	100kΩ,1/16W
R102	NRSA63J-103X	MG RESISTOR	10kΩ,1/16W
R103	NRSA63J-561X	MG RESISTOR	560Ω,1/16W
R104	NRVA63D-153X	CMF RESISTOR	15kΩ,1/16W
R105	NRVA63D-243X	CMF RESISTOR	24kΩ,1/16W
R106	NRVA63D-183X	CMF RESISTOR	18kΩ,1/16W
R107	NRSA63J-472X	MG RESISTOR	4.7kΩ,1/16W
R108	NRSA63J-222X	MG RESISTOR	2.2kΩ,1/16W
R110	NRSA63J-472X	MG RESISTOR	4.7kΩ,1/16W
R111	NRSA63J-222X	MG RESISTOR	2.2kΩ,1/16W
R112	NRSA63J-474X	MG RESISTOR	470kΩ,1/16W
R113	NRSA63J-105X	MG RESISTOR	1MΩ,1/16W
R114	NRSA63J-221X	MG RESISTOR	220Ω,1/16W
R115	NRSA63J-124X	MG RESISTOR	120kΩ,1/16W
R116	NRSA63J-221X	MG RESISTOR	220Ω,1/16W
R117	NRSA63J-105X	MG RESISTOR	1MΩ,1/16W
R118	NRSA63J-474X	MG RESISTOR	470kΩ,1/16W
R119	NRSA63J-474X	MG RESISTOR	470kΩ,1/16W
R120	NRSA63J-472X	MG RESISTOR	4.7kΩ,1/16W
R122	NRSA63J-103X	MG RESISTOR	10kΩ,1/16W
R124	NRSA63J-103X	MG RESISTOR	10kΩ,1/16W
R125	NRSA63J-474X	MG RESISTOR	470kΩ,1/16W
R126	NRSA63J-474X	MG RESISTOR	470kΩ,1/16W
R127	NRSA63J-473X	MG RESISTOR	47kΩ,1/16W
R128	NRSA63J-103X	MG RESISTOR	10kΩ,1/16W
R129	NRSA63J-273X	MG RESISTOR	27kΩ,1/16W
R130	NRSA63J-331X	MG RESISTOR	330Ω,1/16W

# ⚠ REF No.	PART No.	PART NAME, DESCRIPTION	
R131	NRSA63J-393X	MG RESISTOR	39kΩ,1/16W
R132	NRSA63J-562X	MG RESISTOR	5.6kΩ,1/16W
R133	NRSA63J-821X	MG RESISTOR	820Ω,1/16W
R134	NRSA63J-101X	MG RESISTOR	100Ω,1/16W
R135	NRSA63J-273X	MG RESISTOR	27kΩ,1/16W
R136	NRSA63J-103X	MG RESISTOR	10kΩ,1/16W
R137	NRSA63J-474X	MG RESISTOR	470kΩ,1/16W
R138	NRSA63J-103X	MG RESISTOR	10kΩ,1/16W
R139	NRSA63J-474X	MG RESISTOR	470kΩ,1/16W
R140	NRSA63J-183X	MG RESISTOR	18kΩ,1/16W
R141	NRSA63J-473X	MG RESISTOR	47kΩ,1/16W
⚠ R146	NRSA63J-102X	MG RESISTOR	1kΩ,1/16W
R147	NRSA63J-105X	MG RESISTOR	1MΩ,1/16W
R148	NRSA63J-102X	MG RESISTOR	1kΩ,1/16W
R149	NRSA63J-102X	MG RESISTOR	1kΩ,1/16W
R150	NRSA63J-105X	MG RESISTOR	1MΩ,1/16W
R151	NRSA63J-105X	MG RESISTOR	1MΩ,1/16W
R152	NRSA63J-105X	MG RESISTOR	1MΩ,1/16W
R153	NRSA63J-104X	MG RESISTOR	100kΩ,1/16W
R154	NRSA63J-332X	MG RESISTOR	3.3kΩ,1/16W
R155	NRSA63J-474X	MG RESISTOR	470kΩ,1/16W
R156	NRSA63J-473X	MG RESISTOR	47kΩ,1/16W
R157	NRSA63J-104X	MG RESISTOR	100kΩ,1/16W
R158	NRSA63J-104X	MG RESISTOR	100kΩ,1/16W
R159	NRSA63J-104X	MG RESISTOR	100kΩ,1/16W
R160	NRSA63J-105X	MG RESISTOR	1MΩ,1/16W
R161	NRSA63J-105X	MG RESISTOR	1MΩ,1/16W
R162	NRSA63J-105X	MG RESISTOR	1MΩ,1/16W
R163	NRSA63J-222X	MG RESISTOR	2.2kΩ,1/16W
R165	NRSA63J-103X	MG RESISTOR	10kΩ,1/16W
R166	NRSA63J-272X	MG RESISTOR	2.7kΩ,1/16W
R167	NRSA63J-474X	MG RESISTOR	470kΩ,1/16W
R168	NRSA63J-103X	MG RESISTOR	10kΩ,1/16W
R169	NRSA63J-105X	MG RESISTOR	1MΩ,1/16W
R170	NRSA63J-105X	MG RESISTOR	1MΩ,1/16W
R171	NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W
R172	NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W
R173	NRSA63J-681X	MG RESISTOR	680Ω,1/16W
R174	NRSA63J-273X	MG RESISTOR	27kΩ,1/16W
R178	NRSA63J-183X	MG RESISTOR	18kΩ,1/16W
R179	NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W
R180	NRSA63J-222X	MG RESISTOR	2.2kΩ,1/16W
R181	NRSA63J-222X	MG RESISTOR	2.2kΩ,1/16W
R183	NRSA63J-103X	MG RESISTOR	10kΩ,1/16W
R184	NRSA63J-102X	MG RESISTOR	1kΩ,1/16W
R185	NRSA63J-473X	MG RESISTOR	47kΩ,1/16W
R186	NRSA63J-473X	MG RESISTOR	47kΩ,1/16W
R187	NRSA63J-153X	MG RESISTOR	15kΩ,1/16W
R188	NRSA63J-222X	MG RESISTOR	2.2kΩ,1/16W
R189	NRSA63J-222X	MG RESISTOR	2.2kΩ,1/16W
R192	NRSA63J-102X	MG RESISTOR	1kΩ,1/16W
R193	NRSA63J-102X	MG RESISTOR	1kΩ,1/16W
R194	NRSA63J-222X	MG RESISTOR	2.2kΩ,1/16W
R195	NRSA63J-391X	MG RESISTOR	390Ω,1/16W
R501	NRSA63J-105X	MG RESISTOR	1MΩ,1/16W
R503	NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W
R504	NRSA63J-221X	MG RESISTOR	220Ω,1/16W
R505	NRSA63J-331X	MG RESISTOR	330Ω,1/16W
R1201	NRSA63J-824X	MG RESISTOR	820kΩ,1/16W
R1202	NRSA63J-821X	MG RESISTOR	820Ω,1/16W
R1203	NRSA63J-472X	MG RESISTOR	4.7kΩ,1/16W

# ⚠ REF No.	PART No.	PART NAME, DESCRIPTION	
R1204	NRSA63J-274X	MG RESISTOR	270kΩ,1/16
R1601	NRSA63J-471X	MG RESISTOR	470Ω,1/16
R1602	NRSA63J-154X	MG RESISTOR	150kΩ,1/16
R1603	NRSA63J-152X	MG RESISTOR	1.5kΩ,1/16
R1604	NRSA63J-224X	MG RESISTOR	220kΩ,1/16
R1605	NRSA63J-273X	MG RESISTOR	27kΩ,1/16
R1606	NRV142F-R33X	CMF RESISTOR	0.33Ω,1/4
R1607	NRSA63J-683X	MG RESISTOR	68kΩ,1/16
R1608	NRSA63J-153X	MG RESISTOR	15kΩ,1/16
R1609	NRS12BK-R68W	MG RESISTOR	0.68Ω,1/2
R1610	NRSA63J-102X	MG RESISTOR	1kΩ,1/16
R1611	NRSA63J-102X	MG RESISTOR	1kΩ,1/16
R1612	NRSA63J-104X	MG RESISTOR	100kΩ,1/16
R1613	NRSA63J-102X	MG RESISTOR	1kΩ,1/16
R1614	NRSA63J-154X	MG RESISTOR	150kΩ,1/16
R1615	NRSA63J-474X	MG RESISTOR	470kΩ,1/16
R1616	NRVA63D-202X	CMF RESISTOR	2kΩ,1/16
R1617	NRSA63J-473X	MG RESISTOR	47kΩ,1/16
R1618	NRSA63J-183X	MG RESISTOR	18kΩ,1/16
R1619	NRSA63J-393X	MG RESISTOR	39kΩ,1/16
R1620	NRSA63J-103X	MG RESISTOR	10kΩ,1/16
R1621	NRSA63J-103X	MG RESISTOR	10kΩ,1/16
R1622	NRSA63J-103X	MG RESISTOR	10kΩ,1/16
R1623	NRSA63J-103X	MG RESISTOR	10kΩ,1/16
R1624	NRSA63J-103X	MG RESISTOR	10kΩ,1/16
R1625	NRSA63J-271X	MG RESISTOR	270Ω,1/16
R1626	NRSA63J-271X	MG RESISTOR	270Ω,1/16
R1627	NRSA63J-271X	MG RESISTOR	270Ω,1/16
R1628	NRSA63J-271X	MG RESISTOR	270Ω,1/16
R1629	NRSA63J-684X	MG RESISTOR	680kΩ,1/16
R1630	NRSA63J-0R0X	MG RESISTOR	0Ω,1/16
R1631	NRSA63J-0R0X	MG RESISTOR	0Ω,1/16
R1801	NRSA63J-302X	MG RESISTOR	3kΩ,1/16
R1802	NRSA63J-391X	MG RESISTOR	390Ω,1/16
R1803	NRSA63J-0R0X	MG RESISTOR	0Ω,1/16
R1805	NRSA63J-182X	MG RESISTOR	1.8kΩ,1/16
R1806	NRSA63J-103X	MG RESISTOR	10kΩ,1/16
R1807	NRSA63J-684X	MG RESISTOR	680kΩ,1/16
R1808	NRSA63J-222X	MG RESISTOR	2.2kΩ,1/16
R1809	NRSA63J-103X	MG RESISTOR	10kΩ,1/16
R1810	NRSA63J-824X	MG RESISTOR	820kΩ,1/16
R1811	NRSA63J-104X	MG RESISTOR	100kΩ,1/16
R1812	NRSA63J-683X	MG RESISTOR	68kΩ,1/16
R1813	NRSA63J-103X	MG RESISTOR	10kΩ,1/16
R1814	NRSA63J-822X	MG RESISTOR	8.2kΩ,1/16
R1815	NRSA63J-0R0X	MG RESISTOR	0Ω,1/16
R1816	NRSA63J-103X	MG RESISTOR	10kΩ,1/16
R2001	NRSA63J-103X	MG RESISTOR	10kΩ,1/16
R2002	NRSA63J-222X	MG RESISTOR	2.2kΩ,1/16
R2003	NRSA63J-103X	MG RESISTOR	10kΩ,1/16
R2004	NRSA63J-222X	MG RESISTOR	2.2kΩ,1/16
R2005	NRSA63J-473X	MG RESISTOR	47kΩ,1/16
R2006	NRSA63J-473X	MG RESISTOR	47kΩ,1/16
R2007	NRSA63J-153X	MG RESISTOR	15kΩ,1/16
R2008	NRSA63J-3R3X	MG RESISTOR	3.3Ω,1/16
R2009	NRVA63D-512X	CMF RESISTOR	5.1kΩ,1/16
R2010	NRSA63J-153X	MG RESISTOR	15kΩ,1/16
R2011	NRSA63J-472X	MG RESISTOR	4.7kΩ,1/16
R2012	NRSA63J-272X	MG RESISTOR	2.7kΩ,1/16
R2013	NRSA63J-820X	MG RESISTOR	82Ω,1/16
R2014	NRSA63J-820X	MG RESISTOR	82Ω,1/16

# ⚠ REF No.	PART No.	PART NAME, DESCRIPTION	
R2015	NRSA63J-820X	MG RESISTOR	82Ω,1/16W
R2016	NRVA63D-103X	CMF RESISTOR	10kΩ,1/16W
R2019	NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W
R2021	NRSA63J-332X	MG RESISTOR	3.3kΩ,1/16W
R2022	NRSA63J-104X	MG RESISTOR	100kΩ,1/16W
R2023	NRSA63J-121X	MG RESISTOR	120Ω,1/16W
R2024	NRSA63J-823X	MG RESISTOR	82kΩ,1/16W
R2026	NRSA63J-102X	MG RESISTOR	1kΩ,1/16W
R2027	NRSA63J-101X	MG RESISTOR	100Ω,1/16W
R2028	NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W
R2029	NRSA63J-103X	MG RESISTOR	10kΩ,1/16W
R2030	NRSA63J-102X	MG RESISTOR	1kΩ,1/16W
R2033	NRSA63J-153X	MG RESISTOR	15kΩ,1/16W
R2034	NRSA63J-153X	MG RESISTOR	15kΩ,1/16W
R2036	NRVA63D-332X	CMF RESISTOR	3.3kΩ,1/16W
R2051	NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W
R2052	NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W
R2053	NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W
R2061	NRSA63J-103X	MG RESISTOR	10kΩ,1/16W
R2062	NRSA63J-104X	MG RESISTOR	100kΩ,1/16W
R2063	NRSA63J-104X	MG RESISTOR	100kΩ,1/16W
R2064	NRSA63J-104X	MG RESISTOR	100kΩ,1/16W
R2065	NRSA63J-183X	MG RESISTOR	18kΩ,1/16W
R2066	NRSA63J-123X	MG RESISTOR	12kΩ,1/16W
R2071	NRSA63J-102X	MG RESISTOR	1kΩ,1/16W
R2072	NRSA63J-472X	MG RESISTOR	4.7kΩ,1/16W
R2073	NRSA63J-561X	MG RESISTOR	560Ω,1/16W
R2074	NRSA63J-222X	MG RESISTOR	2.2kΩ,1/16W
R2075	NRSA63J-564X	MG RESISTOR	560kΩ,1/16W
R2076	NRSA63J-104X	MG RESISTOR	100kΩ,1/16W
R2077	NRSA63J-105X	MG RESISTOR	1MΩ,1/16W
R2078	NRSA63J-103X	MG RESISTOR	10kΩ,1/16W
R2079	NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W
R2080	NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W
R2081	NRSA63J-563X	MG RESISTOR	56kΩ,1/16W
R2401	NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W
R2402	NRSA63J-822X	MG RESISTOR	8.2kΩ,1/16W
R2403	NRSA63J-103X	MG RESISTOR	10kΩ,1/16W
R2404	NRSA63J-103X	MG RESISTOR	10kΩ,1/16W
R2405	NRSA63J-564X	MG RESISTOR	560kΩ,1/16W
R2406	NRSA63J-102X	MG RESISTOR	1kΩ,1/16W
R2407	NRSA63J-104X	MG RESISTOR	100kΩ,1/16W
R2408	NRSA63J-102X	MG RESISTOR	1kΩ,1/16W
R2409	NRSA63J-223X	MG RESISTOR	22kΩ,1/16W
R2410	NRSA63J-103X	MG RESISTOR	10kΩ,1/16W
R2411	NRSA63J-333X	MG RESISTOR	33kΩ,1/16W
R2412	NRSA63J-332X	MG RESISTOR	3.3kΩ,1/16W
R2413	NRSA63J-563X	MG RESISTOR	56kΩ,1/16W
R2415	NRSA63J-332X	MG RESISTOR	3.3kΩ,1/16W
R2416	NRSA63J-153X	MG RESISTOR	15kΩ,1/16W
R2422	NRSA63J-102X	MG RESISTOR	1kΩ,1/16W
R2423	NRSA63J-103X	MG RESISTOR	10kΩ,1/16W
R3001	NRSA63J-682X	MG RESISTOR	6.8kΩ,1/16W
R3002	NRSA63J-152X	MG RESISTOR	1.5kΩ,1/16W
R3003	NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W
R3004	NRSA63J-472X	MG RESISTOR	4.7kΩ,1/16W
R3005	NRSA63J-152X	MG RESISTOR	1.5kΩ,1/16W
R3009	NRSA63J-332X	MG RESISTOR	3.3kΩ,1/16W
R3011	NRSA63J-222X	MG RESISTOR	2.2kΩ,1/16W
R3012	NRSA63J-222X	MG RESISTOR	2.2kΩ,1/16W
R3013	NRSA63J-222X	MG RESISTOR	2.2kΩ,1/16W

# ⚠ REF No.	PART No.	PART NAME, DESCRIPTION	
R3016	NRSA63J-102X	MG RESISTOR	1kΩ,1/16W
R3017	NRSA63J-102X	MG RESISTOR	1kΩ,1/16W
R3023	NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W
R3025	NRSA63J-273X	MG RESISTOR	27kΩ,1/16W
R3026	NRSA63J-102X	MG RESISTOR	1kΩ,1/16W
R3028	NRSA63J-102X	MG RESISTOR	1kΩ,1/16W
R3029	NRSA63J-152X	MG RESISTOR	1.5kΩ,1/16W
R3030	NRSA63J-222X	MG RESISTOR	2.2kΩ,1/16W
R3031	NRSA63J-561X	MG RESISTOR	560Ω,1/16W
R3033	NRSA63J-152X	MG RESISTOR	1.5kΩ,1/16W
R3034	NRSA63J-103X	MG RESISTOR	10kΩ,1/16W
R3035	NRSA63J-333X	MG RESISTOR	33kΩ,1/16W
R3036	NRSA63J-333X	MG RESISTOR	33kΩ,1/16W
R3037	NRSA63J-102X	MG RESISTOR	1kΩ,1/16W
R3038	NRSA63J-224X	MG RESISTOR	220kΩ,1/16W
R3039	NRSA63J-475X	MG RESISTOR	4.7MΩ,1/16W
R3101	NRSA63J-122X	MG RESISTOR	1.2kΩ,1/16W
R3102	NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W
R3103	NRSA63J-332X	MG RESISTOR	3.3kΩ,1/16W
R3104	NRSA63J-562X	MG RESISTOR	5.6kΩ,1/16W
R3109	NRSA63J-103X	MG RESISTOR	10kΩ,1/16W
R3110	NRVA63D-822X	CMF RESISTOR	8.2kΩ,1/16W
R3111	NRVA63D-392X	CMF RESISTOR	3.9kΩ,1/16W
R3113	NRSA63J-102X	MG RESISTOR	1kΩ,1/16W
R3114	NRSA63J-682X	MG RESISTOR	6.8kΩ,1/16W
R3115	NRSA63J-222X	MG RESISTOR	2.2kΩ,1/16W
R3116	NRSA63J-821X	MG RESISTOR	820Ω,1/16W
R3117	NRSA63J-821X	MG RESISTOR	820Ω,1/16W
R3118	NRSA63J-821X	MG RESISTOR	820Ω,1/16W
R3119	NRSA63J-102X	MG RESISTOR	1kΩ,1/16W
R3120	NRSA63J-102X	MG RESISTOR	1kΩ,1/16W
R3121	NRSA63J-102X	MG RESISTOR	1kΩ,1/16W
R3122	NRSA02J-750X	MG RESISTOR	75Ω,1/10W
R3123	NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W
R3125	NRSA63J-562X	MG RESISTOR,SXM515U	5.6kΩ,1/16W
R3126	NRSA63J-472X	MG RESISTOR,SXM515U	4.7kΩ,1/16W
R3127	NRSA63J-472X	MG RESISTOR,SXM515U	4.7kΩ,1/16W
R3128	NRSA63J-272X	MG RESISTOR,SXM515U	2.7kΩ,1/16W
R3129	NRSA63J-152X	MG RESISTOR	1.5kΩ,1/16W
R3130	NRSA63J-152X	MG RESISTOR	1.5kΩ,1/16W
R3132	NRSA63J-222X	MG RESISTOR	2.2kΩ,1/16W
R3133	NRSA63J-102X	MG RESISTOR	1kΩ,1/16W
R3134	NRSA63J-222X	MG RESISTOR	2.2kΩ,1/16W
R3136	NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W
R3138	NRSA63J-103X	MG RESISTOR	10kΩ,1/16W
R3139	NRSA63J-103X	MG RESISTOR	10kΩ,1/16W
R3140	NRSA63J-103X	MG RESISTOR	10kΩ,1/16W
R3201	NRSA63J-102X	MG RESISTOR	1kΩ,1/16W
R3202	NRSA63J-222X	MG RESISTOR	2.2kΩ,1/16W
R3203	NRSA63J-222X	MG RESISTOR	2.2kΩ,1/16W
R3204	NRSA63J-102X	MG RESISTOR	1kΩ,1/16W
R3205	NRSA63J-102X	MG RESISTOR	1kΩ,1/16W
R3206	NRSA63J-332X	MG RESISTOR	3.3kΩ,1/16W
R3207	NRSA63J-222X	MG RESISTOR	2.2kΩ,1/16W
R3208	NRSA63J-681X	MG RESISTOR	680Ω,1/16W
R3209	NRSA63J-561X	MG RESISTOR	560Ω,1/16W
R3211	NRSA63J-101X	MG RESISTOR	100Ω,1/16W
R3212	NRSA63J-152X	MG RESISTOR	1.5kΩ,1/16W
R3213	NRSA63J-152X	MG RESISTOR	1.5kΩ,1/16W
R3214	NRSA63J-682X	MG RESISTOR	6.8kΩ,1/16W
R3215	NRSA63J-473X	MG RESISTOR	47kΩ,1/16W

# ⚠ REF No.	PART No.	PART NAME, DESCRIPTION	
R3221	NRVA63D-332X	CMF RESISTOR	3.3kΩ,1/16W
R3222	NRVA63D-332X	CMF RESISTOR	3.3kΩ,1/16W
R3223	NRVA63D-152X	CMF RESISTOR	1.5kΩ,1/16W
R3224	NRVA63D-471X	CMF RESISTOR	470Ω,1/16W
R3225	NRVA63D-102X	CMF RESISTOR	1kΩ,1/16W
R3226	NRVA63D-102X	CMF RESISTOR	1kΩ,1/16W
R3227	NRSA63J-122X	MG RESISTOR	1.2kΩ,1/16W
R3228	NRSA63J-162X	MG RESISTOR	1.6kΩ,1/16W
R3229	NRSA63J-151X	MG RESISTOR	150Ω,1/16W
R3230	NRSA63J-391X	MG RESISTOR	390Ω,1/16W
R3231	NRSA63J-332X	MG RESISTOR	3.3kΩ,1/16W
R3232	NRSA63J-332X	MG RESISTOR	3.3kΩ,1/16W
R3233	NRSA63J-222X	MG RESISTOR	2.2kΩ,1/16W
R3234	NRSA63J-153X	MG RESISTOR	15kΩ,1/16W
R3235	NRSA63J-222X	MG RESISTOR	2.2kΩ,1/16W
R3236	NRSA63J-332X	MG RESISTOR	3.3kΩ,1/16W
R3238	NRSA63J-223X	MG RESISTOR	22kΩ,1/16W
R3239	NRSA63J-473X	MG RESISTOR	47kΩ,1/16W
R3240	NRSA63J-473X	MG RESISTOR	47kΩ,1/16W
R3241	NRSA63J-103X	MG RESISTOR	10kΩ,1/16W
R3242	NRSA63J-391X	MG RESISTOR	390Ω,1/16W
R3243	NRSA63J-103X	MG RESISTOR	10kΩ,1/16W
R3244	NRSA63J-272X	MG RESISTOR	2.7kΩ,1/16W
R3246	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W
R3251	NRSA02J-750X	MG RESISTOR	75Ω,1/10W
R3252	NRSA02J-750X	MG RESISTOR	75Ω,1/10W
R3501	NRSA63J-102X	MG RESISTOR	1kΩ,1/16W
R3503	NRSA63J-331X	MG RESISTOR	330Ω,1/16W
R3504	NRSA63J-102X	MG RESISTOR	1kΩ,1/16W
R3506	NRSA63J-102X	MG RESISTOR	1kΩ,1/16W
R3508	NRSA63J-331X	MG RESISTOR	330Ω,1/16W
R3509	NRSA63J-102X	MG RESISTOR	1kΩ,1/16W
R3515	NRSA63J-243X	MG RESISTOR	24kΩ,1/16W
R3519	NRSA63J-681X	MG RESISTOR	680Ω,1/16W
R3520	NRSA63J-332X	MG RESISTOR	3.3kΩ,1/16W
R3525	NRSA63J-122X	MG RESISTOR	1.2kΩ,1/16W
R3526	NRSA63J-562X	MG RESISTOR	5.6kΩ,1/16W
R3527	NRSA63J-122X	MG RESISTOR	1.2kΩ,1/16W
R3528	NRSA63J-561X	MG RESISTOR	560Ω,1/16W
R3530	NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W
R3532	NRSA63J-472X	MG RESISTOR	4.7kΩ,1/16W
R3533	NRSA63J-472X	MG RESISTOR	4.7kΩ,1/16W
R3536	NRSA63J-103X	MG RESISTOR	10kΩ,1/16W
R3901	NRSA63J-182X	MG RESISTOR	1.8kΩ,1/16W
R3903	NRSA63J-393X	MG RESISTOR	39kΩ,1/16W
R3904	NRSA63J-393X	MG RESISTOR	39kΩ,1/16W
R3905	NRSA63J-100X	MG RESISTOR	10Ω,1/16W
R3906	NRSA63J-100X	MG RESISTOR	10Ω,1/16W
R4002	NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W
R4004	NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W
R4005	NRVA63D-153X	CMF RESISTOR	15kΩ,1/16W
R4006	NRVA63D-912X	CMF RESISTOR	9.1kΩ,1/16W
R4007	NRVA63D-153X	CMF RESISTOR	15kΩ,1/16W
R4008	NRVA63D-153X	CMF RESISTOR	15kΩ,1/16W
R4009	NRVA63D-153X	CMF RESISTOR	15kΩ,1/16W
R4010	NRVA63D-103X	CMF RESISTOR	10kΩ,1/16W
R4011	NRSA63J-272X	MG RESISTOR	2.7kΩ,1/16W
R4012	NRSA63J-272X	MG RESISTOR	2.7kΩ,1/16W
R4013	NRSA63J-272X	MG RESISTOR	2.7kΩ,1/16W
R4027	NRSA63J-122X	MG RESISTOR	1.2kΩ,1/16W
R4028	NRSA63J-561X	MG RESISTOR	560Ω,1/16W

# ⚠ REF No.	PART No.	PART NAME, DESCRIPTION	
R4038	NRSA63J-561X	MG RESISTOR	560Ω,1/16
R4039	NRSA63J-152X	MG RESISTOR	1.5kΩ,1/16
R4040	NRSA63J-152X	MG RESISTOR	1.5kΩ,1/16
R4041	NRVA63D-103X	CMF RESISTOR	10kΩ,1/16
R4042	NRSA63J-0R0X	MG RESISTOR	0Ω,1/16
R4051	NRSA63J-151X	MG RESISTOR	150Ω,1/16
R4052	NRSA63J-101X	MG RESISTOR	100Ω,1/16
R4053	NRSA63J-101X	MG RESISTOR	100Ω,1/16
R4054	NRSA63J-0R0X	MG RESISTOR	0Ω,1/16
R4056	NRSA63J-0R0X	MG RESISTOR	0Ω,1/16
R4062	NRSA63J-0R0X	MG RESISTOR	0Ω,1/16
R4201	NRSA63J-103X	MG RESISTOR	10kΩ,1/16
R4202	NRSA63J-563X	MG RESISTOR	56kΩ,1/16
R4203	NRSA63J-103X	MG RESISTOR	10kΩ,1/16
R4205	NRSA63J-474X	MG RESISTOR	470kΩ,1/16
R4207	NRSA63J-243X	MG RESISTOR	24kΩ,1/16
R4208	NRSA63J-105X	MG RESISTOR	1MΩ,1/16
R4209	NRSA63J-105X	MG RESISTOR	1MΩ,1/16
R4211	NRSA63J-391X	MG RESISTOR	390Ω,1/16
R4214	NRSA63J-104X	MG RESISTOR	100kΩ,1/16
R4215	NRSA63J-103X	MG RESISTOR	10kΩ,1/16
R4216	NRSA63J-472X	MG RESISTOR	4.7kΩ,1/16
R4217	NRSA63J-104X	MG RESISTOR	100kΩ,1/16
R4218	NRSA63J-472X	MG RESISTOR	4.7kΩ,1/16
R4219	NRSA63J-103X	MG RESISTOR	10kΩ,1/16
R4223	NRSA63J-102X	MG RESISTOR	1kΩ,1/16
R4224	NRSA63J-104X	MG RESISTOR	100kΩ,1/16
R4225	NRSA63J-683X	MG RESISTOR	68kΩ,1/16
R4226	NRSA63J-102X	MG RESISTOR	1kΩ,1/16
R4227	NRSA63J-334X	MG RESISTOR	330kΩ,1/16
R4228	NRSA63J-154X	MG RESISTOR	150kΩ,1/16
R4229	NRSA63J-102X	MG RESISTOR	1kΩ,1/16
R4230	NRSA63J-102X	MG RESISTOR	1kΩ,1/16
R4231	NRSA63J-152X	MG RESISTOR	1.5kΩ,1/16
R4232	NRSA63J-333X	MG RESISTOR	33kΩ,1/16
R4233	NRSA63J-223X	MG RESISTOR	22kΩ,1/16
R4501	NRSA63J-223X	MG RESISTOR	22kΩ,1/16
R4502	NRSA63J-182X	MG RESISTOR	1.8kΩ,1/16
R4503	NRSA63J-333X	MG RESISTOR	33kΩ,1/16
R4504	NRSA63J-333X	MG RESISTOR	33kΩ,1/16
R4505	NRSA63J-0R0X	MG RESISTOR	0Ω,1/16
R4506	NRSA63J-104X	MG RESISTOR	100kΩ,1/16
⚠ R4507	NRSA63J-8R2X	MG RESISTOR	8.2Ω,1/16
⚠ R4508	NRSA63J-8R2X	MG RESISTOR	8.2Ω,1/16
⚠ R4509	NRSA63J-8R2X	MG RESISTOR	8.2Ω,1/16
⚠ R4510	NRSA63J-8R2X	MG RESISTOR	8.2Ω,1/16
R4511	NRSA63J-0R0X	MG RESISTOR	0Ω,1/16
R4512	NRSA63J-151X	MG RESISTOR	150Ω,1/16
R4513	NRSA63J-151X	MG RESISTOR	150Ω,1/16
R4515	NRSA63J-103X	MG RESISTOR	10kΩ,1/16
R4516	NRSA63J-103X	MG RESISTOR	10kΩ,1/16
R5201	NRSA63J-101X	MG RESISTOR	100Ω,1/16
R5202	NRSA63J-101X	MG RESISTOR	100Ω,1/16
R5203	NRSA63J-101X	MG RESISTOR	100Ω,1/16
R5204	NRSA63J-101X	MG RESISTOR	100Ω,1/16
R5205	NRSA63J-100X	MG RESISTOR	10Ω,1/16
R5207	NRSA63J-100X	MG RESISTOR	10Ω,1/16
R5208	NRSA63J-100X	MG RESISTOR	10Ω,1/16
R5209	NRSA63J-100X	MG RESISTOR	10Ω,1/16
R5210	NRSA63J-100X	MG RESISTOR	10Ω,1/16
R5211	NRSA63J-100X	MG RESISTOR	10Ω,1/16

# ⚠ REF No.	PART No.	PART NAME, DESCRIPTION	
R5212	NRSA63J-100X	MG RESISTOR	10Ω,1/16W
R5213	NRSA63J-104X	MG RESISTOR	100kΩ,1/16W
R5217	NRSA63J-472X	MG RESISTOR	4.7kΩ,1/16W
R5228	NRSA63J-104X	MG RESISTOR	100kΩ,1/16W
R5229	NRSA63J-243X	MG RESISTOR	24kΩ,1/16W
R6002	NRSA63J-563X	MG RESISTOR	56kΩ,1/16W
R6003	NRSA63J-103X	MG RESISTOR	10kΩ,1/16W
R6004	NRSA63J-103X	MG RESISTOR	10kΩ,1/16W
R6006	NRSA63J-823X	MG RESISTOR	82kΩ,1/16W
R6007	NRSA63J-223X	MG RESISTOR	22kΩ,1/16W
R6008	NRSA63J-682X	MG RESISTOR	6.8kΩ,1/16W
R6009	NRSA63J-683X	MG RESISTOR	68kΩ,1/16W
R6010	NRVA63D-562X	CMF RESISTOR	5.6kΩ,1/16W
R6011	NRVA63D-113X	CMF RESISTOR	11kΩ,1/16W
R6012	NRVA63D-103X	CMF RESISTOR	10kΩ,1/16W
R6013	NRVA63D-274X	CMF RESISTOR	270kΩ,1/16W
R6014	NRVA63D-104X	CMF RESISTOR	100kΩ,1/16W
R6016	NRVA63D-113X	CMF RESISTOR	11kΩ,1/16W
R6017	NRVA63D-103X	CMF RESISTOR	10kΩ,1/16W
R6020	NRSA63J-102X	MG RESISTOR	1kΩ,1/16W
R6021	NRSA63J-102X	MG RESISTOR	1kΩ,1/16W
R6022	NRSA63J-471X	MG RESISTOR	470Ω,1/16W
R6023	NRSA63J-391X	MG RESISTOR	390Ω,1/16W
R6024	NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W
R6026	NRVA63D-303X	CMF RESISTOR	30kΩ,1/16W
R6027	NRVA63D-103X	CMF RESISTOR	10kΩ,1/16W
R6028	NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W
R6029	NRSA63J-474X	MG RESISTOR	470kΩ,1/16W
R6030	NRSA63J-103X	MG RESISTOR	10kΩ,1/16W
R6031	NRSA63J-152X	MG RESISTOR	1.5kΩ,1/16W
R6032	NRSA63J-473X	MG RESISTOR	47kΩ,1/16W
R6034	NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W
R6035	NRVA63D-243X	CMF RESISTOR	24kΩ,1/16W
R6036	NRVA63D-332X	CMF RESISTOR	3.3kΩ,1/16W
R6037	NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W
R6038	NRSA63J-103X	MG RESISTOR	10kΩ,1/16W
R6039	NRVA63D-473X	CMF RESISTOR	47kΩ,1/16W
R6040	NRVA63D-273X	CMF RESISTOR	27kΩ,1/16W
R6041	NRSA63J-223X	MG RESISTOR	22kΩ,1/16W
R6042	NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W
R6043	NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W
R6045	NRSA63J-222X	MG RESISTOR	2.2kΩ,1/16W
R6047	NRSA63J-682X	MG RESISTOR	6.8kΩ,1/16W
R6048	NRVA63D-393X	CMF RESISTOR	39kΩ,1/16W
R6049	NRVA63D-332X	CMF RESISTOR	3.3kΩ,1/16W
R6050	NRSA63J-222X	MG RESISTOR	2.2kΩ,1/16W
R6052	NRSA63J-563X	MG RESISTOR	56kΩ,1/16W
R6053	NRSA63J-223X	MG RESISTOR	22kΩ,1/16W
R6055	NRSA63J-124X	MG RESISTOR	120kΩ,1/16W
R6056	NRSA63J-103X	MG RESISTOR	10kΩ,1/16W
R6201	NRSA63J-103X	MG RESISTOR	10kΩ,1/16W
R6202	NRSA63J-103X	MG RESISTOR	10kΩ,1/16W
R6203	NRSA63J-103X	MG RESISTOR	10kΩ,1/16W
R6204	NRSA63J-103X	MG RESISTOR	10kΩ,1/16W
R6205	NRSA63J-100X	MG RESISTOR	10Ω,1/16W
R6206	NRSA63J-102X	MG RESISTOR	1kΩ,1/16W
R7102	NRSA63J-0R0X	MG RESISTOR,SXM915U	0Ω,1/16W
R7103	NRSA63J-563X	MG RESISTOR,SXM915U	56kΩ,1/16W
R7106	NRSA63J-0R0X	MG RESISTOR,SXM915U	0Ω,1/16W
R7107	NRSA63J-101X	MG RESISTOR,SXM915U	100Ω,1/16W
R7108	NRVA63D-182X	CMF RESISTOR,SXM915U	1.8kΩ,1/16W

# ⚠ REF No.	PART No.	PART NAME, DESCRIPTION	
R7109	NRSA63J-0R0X	MG RESISTOR,SXM915U	0Ω,1/16W
R7111	NRVA63D-332X	CMF RESISTOR,SXM915U	3.3kΩ,1/16W
R7112	NRVA63D-561X	CMF RESISTOR,SXM915U	560Ω,1/16W
R7113	NRSA63J-0R0X	MG RESISTOR,SXM915U	0Ω,1/16W
R7115	NRSA63J-0R0X	MG RESISTOR,SXM915U	0Ω,1/16W
RA101	NRZ0038-222X	NETWORK RESISTOR	2.2kΩ
RA102	NRZ0038-222X	NETWORK RESISTOR	2.2kΩ
RA103	NRZ0038-222X	NETWORK RESISTOR	2.2kΩ
RA105	NRZ0038-222X	NETWORK RESISTOR	2.2kΩ
RA107	NRZ0038-222X	NETWORK RESISTOR	2.2kΩ
RA108	NRZ0012-331X	NETWORK RESISTOR	330Ω
C101	NEA71CM-226X	E CAPACITOR	22μF,16V
C102	NBE41AM-106X	T CAPACITOR	10μF,10V
C103	NCB31CK-104X	CAPACITOR	0.1μF,16V
C104	NBE21AM-225X	T CAPACITOR	2.2μF,10V
C105	NEA70JM-226X	E CAPACITOR	22μF,6.3V
C106	NEA70JM-226X	E CAPACITOR	22μF,6.3V
C107	NCB31EK-103X	CAPACITOR	0.01μF,25V
C108	NCB31EK-103X	CAPACITOR	0.01μF,25V
C109	NCB21CK-474X	CAPACITOR	0.47μF,16V
C110	NCB31CK-333X	CAPACITOR	0.033μF,16V
C111	NDC31HJ-120X	CAPACITOR	12pF,50V
C112	NDC31HJ-100X	CAPACITOR	10pF,50V
C113	NDC31HJ-100X	CAPACITOR	10pF,50V
C114	NCB31CK-333X	CAPACITOR	0.033μF,16V
C116	NCB31EK-103X	CAPACITOR	0.01μF,25V
C117	NCB31EK-103X	CAPACITOR	0.01μF,25V
C118	NCB31EK-103X	CAPACITOR	0.01μF,25V
C119	NBE41AM-106X	T CAPACITOR	10μF,10V
C120	NDC31HJ-101X	CAPACITOR	100pF,50V
C121	NDC31HJ-101X	CAPACITOR	100pF,50V
C122	NCB31EK-103X	CAPACITOR	0.01μF,25V
C123	NCB31EK-103X	CAPACITOR	0.01μF,25V
C124	NCB31EK-103X	CAPACITOR	0.01μF,25V
C125	NCB31EK-103X	CAPACITOR	0.01μF,25V
C126	NDC31HJ-101X	CAPACITOR	100pF,50V
C128	NDC31HJ-151X	CAPACITOR	150pF,50V
C130	NCB31EK-103X	CAPACITOR	0.01μF,25V
C131	NCB31EK-103X	CAPACITOR	0.01μF,25V
C133	NCB31CK-104X	CAPACITOR	0.1μF,16V
C135	NCB31CK-104X	CAPACITOR	0.1μF,16V
C136	NCF31AZ-105X	CAPACITOR	1μF,10V
C137	NCF31AZ-105X	CAPACITOR	1μF,10V
C138	NCB31CK-104X	CAPACITOR	0.1μF,16V
C141	NCB31EK-103X	CAPACITOR	0.01μF,25V
C142	NCB31EK-103X	CAPACITOR	0.01μF,25V
C143	NCB31EK-103X	CAPACITOR	0.01μF,25V
C144	NCB31EK-103X	CAPACITOR	0.01μF,25V
C1201	NBE41AM-106X	T CAPACITOR	10μF,10V
C1202	NBE41AM-106X	T CAPACITOR	10μF,10V
C1204	NCB31HK-102X	CAPACITOR	.001μF,50V
C1205	NCF21CZ-105X	CAPACITOR	1μF,16V
C1206	NBE41AM-106X	T CAPACITOR	10μF,10V
C1601	NCB31EK-103X	CAPACITOR	0.01μF,25V
C1602	NBE41AM-106X	T CAPACITOR	10μF,10V
C1603	NBE41AM-226X	T CAPACITOR	22μF,10V
C1604	NCB31HK-681X	CAPACITOR	680pF,50V
C1605	NCB21CK-474X	CAPACITOR	0.47μF,16V
C1606	NCB31HK-152X	CAPACITOR	0.015μF,50V
C1607	NCB31CK-223X	CAPACITOR	.022μF,16V
C1608	NCB31CK-223X	CAPACITOR	.022μF,16V

# ⚠ REF No.	PART No.	PART NAME, DESCRIPTION	
C1609	NCB31CK-223X	CAPACITOR	0.022μF,16V
C1610	NCF21EZ-224X	CAPACITOR	0.22μF,25V
C1611	NCF21EZ-224X	CAPACITOR	0.22μF,25V
C1612	NCF21EZ-224X	CAPACITOR	0.22μF,25V
C1613	NCF21EZ-224X	CAPACITOR	0.22μF,25V
C1614	NBP41CM-106X	T CAPACITOR	10μF,16V
C1615	NCB31CK-104X	CAPACITOR	0.1μF,16V
C1616	NCB31CK-104X	CAPACITOR	0.1μF,16V
C1617	NCB31CK-104X	CAPACITOR	0.1μF,16V
C1618	NCB31CK-223X	CAPACITOR	0.022μF,16V
C1619	NCB31CK-223X	CAPACITOR	0.022μF,16V
C1620	NCB31CK-223X	CAPACITOR	0.022μF,16V
C1621	NCB31CK-104X	CAPACITOR	0.1μF,16V
C1622	NCB31CK-104X	CAPACITOR	0.1μF,16V
C1623	NCB31CK-104X	CAPACITOR	0.1μF,16V
C1624	NCB31HK-472X	CAPACITOR	0.0047μF,50V
C1625	NCB31CK-104X	CAPACITOR	0.1μF,16V
C1626	NCB31CK-104X	CAPACITOR	0.1μF,16V
C1627	NCB31CK-473X	CAPACITOR	0.047μF,16V
C1628	NCF21CZ-334X	CAPACITOR	0.33μF,16V
C1633	NCF21CZ-105X	CAPACITOR	1μF,16V
C1801	NEA70JM-226X	E CAPACITOR	22μF,6.3V
C1803	NBE20JM-225X	T CAPACITOR	2.2μF,6.3V
C1804	NCB31CK-104X	CAPACITOR	0.1μF,16V
C1805	NCB31EK-153X	CAPACITOR	0.015μF,25V
C1806	NCB31EK-153X	CAPACITOR	0.015μF,25V
C1808	NBE20JM-106X	T CAPACITOR	10μF,6.3V
C2001	NBE41AM-226X	T CAPACITOR	22μF,10V
C2002	NCB31HK-682X	CAPACITOR	0.0068μF,50V
C2003	NDC31HJ-471X	CAPACITOR	470pF,50V
C2004	NFV41HJ-273X	MPPS CAPACITOR	0.027μF,50V
C2005	NDC31HJ-331X	CAPACITOR	330pF,50V
C2008	NEZ0012-476X	E CAPACITOR	47μF,5.5V
C2009	NEZ0012-476X	E CAPACITOR	47μF,5.5V
C2021	NCB21EK-223X	CAPACITOR	0.022μF,25V
C2022	NBE20JM-156X	T CAPACITOR	15μF,6.3V
C2024	NCB31HK-222X	CAPACITOR	0.0022μF,50V
C2025	NBP21CM-105X	T CAPACITOR	1μF,16V
C2026	NCB31HK-122X	CAPACITOR	0.0012μF,50V
C2027	NBP21EM-474X	T CAPACITOR	0.47μF,25V
C2028	NCF21CZ-105X	CAPACITOR	1μF,16V
C2029	NEA70GM-476X	E CAPACITOR	47μF,4.0V
C2030	NEA70JM-226X	E CAPACITOR	22μF,6.3V
C2031	NCB31HK-102X	CAPACITOR	0.001μF,50V
C2052	NCB31EK-682X	CAPACITOR	0.0068μF,25V
C2061	NCB21EK-104X	CAPACITOR	0.1μF,25V
C2062	NCF21CZ-105X	CAPACITOR	1μF,16V
C2063	NCF21CZ-105X	CAPACITOR	1μF,16V
C2071	NEZ0012-476X	E CAPACITOR	47μF,5.5V
C2072	NBP21CM-105X	T CAPACITOR	1μF,16V
C2073	NDC31HJ-331X	CAPACITOR	330pF,50V
C2074	NCB31EK-223X	CAPACITOR	0.022μF,25V
C2075	NCB31HK-102X	CAPACITOR	0.001μF,50V
C2076	NBP21EM-474X	T CAPACITOR	0.47μF,25V
C2077	NDC31HJ-121X	CAPACITOR	120pF,50V
C2078	NBE20JM-475X	T CAPACITOR	4.7μF,6.3V
C2079	NCB21EK-104X	CAPACITOR	0.1μF,25V
C2080	NCB31HK-472X	CAPACITOR	0.0047μF,50V
C2081	NDC31HJ-121X	CAPACITOR	120pF,50V
C2402	NCB31CK-104X	CAPACITOR	0.1μF,16V
C2403	NCB31CK-104X	CAPACITOR	0.1μF,16V

# ⚠ REF No.	PART No.	PART NAME, DESCRIPTION	
C2404	NBE20JM-475X	T CAPACITOR	4.7μF,6.
C2405	NCB31CK-104X	CAPACITOR	0.1μF,1
C2406	NCB31CK-104X	CAPACITOR	0.1μF,1
C2408	NCB31HK-152X	CAPACITOR	0.0015μF,5
C2409	NCB31HK-152X	CAPACITOR	0.0015μF,5
C2410	NCB21CK-224X	CAPACITOR	0.22μF,1
C2411	NCB21CK-224X	CAPACITOR	0.22μF,1
C2412	NBE40JM-106X	T CAPACITOR	10μF,6.
C2413	NCB21CK-473X	CAPACITOR	0.047μF,1
C2414	NCB21CK-473X	CAPACITOR	0.047μF,1
C2415	NBE40JM-106X	T CAPACITOR	10μF,6.
C2417	NCB31CK-104X	CAPACITOR	0.1μF,1
C2419	NCB31CK-333X	CAPACITOR	0.033μF,1
C2420	NCB21CK-104X	CAPACITOR	0.1μF,1
C2422	NCB31CK-333X	CAPACITOR	0.033μF,1
C2423	NCB31CK-333X	CAPACITOR	0.033μF,1
C3001	NCB31EK-103X	CAPACITOR	0.01μF,2
C3002	NBE20JM-106X	T CAPACITOR	10μF,6.
C3003	NDC31HJ-151X	CAPACITOR	150pF,5
C3004	NCB31CK-104X	CAPACITOR	0.1μF,1
C3005	NDC31HJ-150X	CAPACITOR	15pF,5
C3007	NCB31CK-104X	CAPACITOR	0.1μF,1
C3008	NCB31CK-104X	CAPACITOR	0.1μF,1
C3009	NBE20JM-106X	T CAPACITOR	10μF,6.
C3010	NCB31EK-153X	CAPACITOR	0.015μF,2
C3011	NCB31CK-104X	CAPACITOR	0.1μF,1
C3012	NBE20JM-335X	T CAPACITOR	3.3μF,6.
C3013	NBE20JM-106X	T CAPACITOR	10μF,6.
C3014	NBE20JM-225X	T CAPACITOR	2.2μF,6.
C3016	NDC31HJ-271X	CAPACITOR	270pF,5
C3017	NCB31EK-103X	CAPACITOR	0.01μF,2
C3018	NBE20JM-106X	T CAPACITOR	10μF,6.
C3019	NCB31EK-103X	CAPACITOR	0.01μF,2
C3021	NCB31CK-104X	CAPACITOR	0.1μF,1
C3022	NCB31EK-103X	CAPACITOR	0.01μF,2
C3023	NCB31CK-104X	CAPACITOR	0.1μF,1
C3024	NCB31EK-103X	CAPACITOR	0.01μF,2
C3025	NCB31EK-103X	CAPACITOR	0.01μF,2
C3026	NCB31EK-103X	CAPACITOR	0.01μF,2
C3027	NBE20JM-106X	T CAPACITOR	10μF,6.
C3029	NRSA63J-0R0X	MG RESISTOR	0Ω,1/1
C3030	NBE20JM-475X	T CAPACITOR	4.7μF,6.
C3031	NCB31CK-683X	CAPACITOR	0.068μF,1
C3032	NCB21CK-474X	CAPACITOR	0.47μF,1
C3033	NCB31CK-223X	CAPACITOR	0.022μF,1
C3034	NBE20JM-225X	T CAPACITOR	2.2μF,6.
C3035	NCB31HK-472X	CAPACITOR	0.0047μF,5
C3036	NCB31EK-103X	CAPACITOR	0.01μF,2
C3037	NCB31EK-103X	CAPACITOR	0.01μF,2
C3038	NCB31CK-333X	CAPACITOR	0.033μF,1
C3039	NBE20JM-335X	T CAPACITOR	3.3μF,6.
C3040	NCB31EK-103X	CAPACITOR	0.01μF,2
C3041	NBE20JM-106X	T CAPACITOR	10μF,6.
C3042	NDC31HJ-6R0X	CAPACITOR	6pF,5
C3044	NDC31HJ-270X	CAPACITOR	27pF,5
C3045	NDC31HJ-6R0X	CAPACITOR	6pF,5
C3046	NDC31HJ-5R0X	CAPACITOR	5pF,5
C3047	NDC31HJ-220X	CAPACITOR	22pF,5
C3101	NCB31EK-103X	CAPACITOR	0.01μF,2
C3102	NBE20JM-106X	T CAPACITOR	10μF,6.
C3103	NCB31EK-103X	CAPACITOR	0.01μF,2

# ⚠ REF No.	PART No.	PART NAME, DESCRIPTION	
C3104	NCB31EK-103X	CAPACITOR	0.01μF,25V
C3105	NCB21AK-105X	CAPACITOR	1μF,10V
C3106	NCB21AK-105X	CAPACITOR	1μF,10V
C3107	NCB21AK-105X	CAPACITOR,SXM515U	1μF,10V
C3108	NCB31EK-103X	CAPACITOR,SXM515U	0.01μF,25V
C3109	NCB31EK-103X	CAPACITOR	0.01μF,25V
C3110	NBE20JM-106X	T CAPACITOR	10μF,6.3V
C3111	NEA50GM-337X	E CAPACITOR	330μF,4.0V
C3113	NBE20JM-106X	T CAPACITOR	10μF,6.3V
C3201	NCB31EK-103X	CAPACITOR	0.01μF,25V
C3202	NBE20JM-106X	T CAPACITOR	10μF,6.3V
C3206	NDC31HG-301X	CAPACITOR	300pF,50V
C3207	NDC31HG-221X	CAPACITOR	220pF,50V
C3208	NDC31HG-301X	CAPACITOR	300pF,50V
C3209	NDC31HG-820X	CAPACITOR	82pF,50V
C3210	NDC31HG-301X	CAPACITOR	300pF,50V
C3211	NDC31HG-101X	CAPACITOR	100pF,50V
C3212	NDC31HG-301X	CAPACITOR	300pF,50V
C3213	NDC31HJ-181X	CAPACITOR	180pF,50V
C3214	NDC31HJ-271X	CAPACITOR	270pF,50V
C3215	NBE20JM-475X	T CAPACITOR	4.7μF,6.3V
C3216	NBE21AM-225X	T CAPACITOR	2.2μF,10V
C3217	NBE21AM-225X	T CAPACITOR	2.2μF,10V
C3218	NBE20JM-475X	T CAPACITOR	4.7μF,6.3V
C3219	NCB31EK-103X	CAPACITOR	0.01μF,25V
C3220	NDC31HJ-270X	CAPACITOR	27pF,50V
C3221	NDC31HJ-270X	CAPACITOR	27pF,50V
C3222	NCB21AK-105X	CAPACITOR	1μF,10V
C3223	NCB11AK-475X	CAPACITOR	4.7μF,10V
C3224	NCB31EK-103X	CAPACITOR	0.01μF,25V
C3250	NCB31EK-103X	CAPACITOR	0.01μF,25V
C3252	NBE20JM-106X	T CAPACITOR	10μF,6.3V
C3253	NEA50GM-337X	E CAPACITOR	330μF,4.0V
C3254	NCB31EK-103X	CAPACITOR	0.01μF,25V
C3501	NBE20JM-106X	T CAPACITOR	10μF,6.3V
C3502	NCF21CZ-105X	CAPACITOR	1μF,16V
C3503	NCB31EK-103X	CAPACITOR	0.01μF,25V
C3504	NCB31EK-103X	CAPACITOR	0.01μF,25V
C3505	NCB31EK-103X	CAPACITOR	0.01μF,25V
C3506	NCB31EK-103X	CAPACITOR	0.01μF,25V
C3507	NCF21CZ-105X	CAPACITOR	1μF,16V
C3508	NCB31EK-153X	CAPACITOR	0.015μF,25V
C3509	NCB31EK-103X	CAPACITOR	0.01μF,25V
C3510	NCB31CK-104X	CAPACITOR	0.1μF,16V
C3513	NCB31EK-103X	CAPACITOR	0.01μF,25V
C3514	NCB31EK-103X	CAPACITOR	0.01μF,25V
C3515	NCB31CK-104X	CAPACITOR	0.1μF,16V
C3517	NCB31EK-103X	CAPACITOR	0.01μF,25V
C3518	NCB31CK-104X	CAPACITOR	0.1μF,16V
C3520	NCB31EK-103X	CAPACITOR	0.01μF,25V
C3522	NCB31EK-103X	CAPACITOR	0.01μF,25V
C3523	NCB31CK-104X	CAPACITOR	0.1μF,16V
C3525	NCB31CK-473X	CAPACITOR	0.047μF,16V
C3526	NDC31HJ-121X	CAPACITOR	120pF,50V
C3527	NCB31EK-103X	CAPACITOR	0.01μF,25V
C3901	NDC31HJ-151X	CAPACITOR	150pF,50V
C3903	NCB31EK-103X	CAPACITOR	0.01μF,25V
C3904	NDC31HJ-101X	CAPACITOR	100pF,50V
C3905	NDC31HJ-101X	CAPACITOR	100pF,50V
C4001	NCF31EZ-104X	CAPACITOR	0.1μF,25V
C4002	NCF31EZ-104X	CAPACITOR	0.1μF,25V

# ⚠ REF No.	PART No.	PART NAME, DESCRIPTION	
C4003	NCF31EZ-104X	CAPACITOR	0.1μF,25V
C4004	NCF31EZ-104X	CAPACITOR	0.1μF,25V
C4005	NCF31EZ-104X	CAPACITOR	0.1μF,25V
C4006	NCF31EZ-104X	CAPACITOR	0.1μF,25V
C4007	NCF31EZ-104X	CAPACITOR	0.1μF,25V
C4008	NBE40JM-226X	T CAPACITOR	22μF,6.3V
C4009	NCF31EZ-104X	CAPACITOR	0.1μF,25V
C4010	NBE20JM-106X	T CAPACITOR	10μF,6.3V
C4011	NCF31EZ-104X	CAPACITOR	0.1μF,25V
C4012	NCF31EZ-104X	CAPACITOR	0.1μF,25V
C4013	NCB21AK-105X	CAPACITOR	1μF,10V
C4014	NCF31EZ-104X	CAPACITOR	0.1μF,25V
C4015	NBE20GM-336X	T CAPACITOR	33μF,4.0V
C4016	NCF31EZ-104X	CAPACITOR	0.1μF,25V
C4017	NCF31EZ-104X	CAPACITOR	0.1μF,25V
C4018	NCF31EZ-104X	CAPACITOR	0.1μF,25V
C4021	NCF31EZ-104X	CAPACITOR	0.1μF,25V
C4022	NCB31CK-104X	CAPACITOR	0.1μF,16V
C4023	NCF31EZ-104X	CAPACITOR	0.1μF,25V
C4025	NCF31EZ-104X	CAPACITOR	0.1μF,25V
C4026	NCF31EZ-104X	CAPACITOR	0.1μF,25V
C4027	NCB21AK-105X	CAPACITOR	1μF,10V
C4032	NBE41AM-106X	T CAPACITOR	10μF,10V
C4033	NCB21AK-105X	CAPACITOR	1μF,10V
C4034	NCF31EZ-104X	CAPACITOR	0.1μF,25V
C4037	NCF31CZ-104X	CAPACITOR	0.1μF,16V
C4038	NCF31CZ-104X	CAPACITOR	0.1μF,16V
C4040	NDC31HJ-180X	CAPACITOR	18pF,50V
C4042	NCF31EZ-104X	CAPACITOR	0.1μF,25V
C4201	NBE20JM-225X	T CAPACITOR	2.2μF,6.3V
C4202	NCF31CZ-104X	CAPACITOR	0.1μF,16V
C4203	NCB31CK-104X	CAPACITOR	0.1μF,16V
C4205	NCB31EK-103X	CAPACITOR	0.01μF,25V
C4207	NCB31CK-104X	CAPACITOR	0.1μF,16V
C4208	NCB31CK-104X	CAPACITOR	0.1μF,16V
C4210	NCF21CZ-105X	CAPACITOR	1μF,16V
C4211	NCF21CZ-105X	CAPACITOR	1μF,16V
C4213	NCB31EK-103X	CAPACITOR	0.01μF,25V
C4301	NCB31EK-103X	CAPACITOR	0.01μF,25V
C4501	NBE20JM-106X	T CAPACITOR	10μF,6.3V
C4502	NCF31CZ-104X	CAPACITOR	0.1μF,16V
C4503	NEA71CM-107X	E CAPACITOR	100μF,16V
C4504	NCF31CZ-104X	CAPACITOR	0.1μF,16V
C4505	NDC31HJ-330X	CAPACITOR	33pF,50V
C4506	NCB31HK-102X	CAPACITOR	0.001μF,50V
C4507	NCB31HK-102X	CAPACITOR	0.001μF,50V
C4508	NCB31HK-102X	CAPACITOR	0.001μF,50V
C4509	NCB31HK-102X	CAPACITOR	0.001μF,50V
C4511	NCB31CK-104X	CAPACITOR	0.1μF,16V
C4512	NBE20JM-106X	T CAPACITOR	10μF,6.3V
C5201	NCF31EZ-104X	CAPACITOR	0.1μF,25V
C5203	NCF31CZ-104X	CAPACITOR	0.1μF,16V
C5204	NCF31EZ-104X	CAPACITOR	0.1μF,25V
C5205	NCF31CZ-104X	CAPACITOR	0.1μF,16V
C5206	NCF31CZ-104X	CAPACITOR	0.1μF,16V
C5207	NBP41VM-105X	T CAPACITOR	1μF,35V
C5210	NCB21EK-104X	CAPACITOR	0.1μF,25V
C5212	NCB31CK-104X	CAPACITOR	0.1μF,16V
C5214	NBP21CM-685X	T CAPACITOR	6.8μF,16V
C5215	NCF31CZ-104X	CAPACITOR	0.1μF,16V
C5216	NCF31EZ-104X	CAPACITOR	0.1μF,25V

# ⚠ REF No.	PART No.	PART NAME, DESCRIPTION	
C5217	NBP21EM-155X	T CAPACITOR	1.5µF,25V
C5218	NCB21AK-105X	CAPACITOR	1µF,10V
C5219	NBE50GM-107X	T CAPACITOR	100µF,4.0V
C5220	NBE50GM-107X	T CAPACITOR	100µF,4.0V
C5221	NCF31CZ-104X	CAPACITOR	0.1µF,16V
C5222	NCF31CZ-104X	CAPACITOR	0.1µF,16V
C5223	NCF31CZ-104X	CAPACITOR	0.1µF,16V
C5224	NCF31CZ-104X	CAPACITOR	0.1µF,16V
C5225	NCF31CZ-104X	CAPACITOR	0.1µF,16V
C5226	NBP21EM-105X	T CAPACITOR	1µF,25V
C5227	NCB31CK-104X	CAPACITOR	0.1µF,16V
C5228	NCB31CK-104X	CAPACITOR	0.1µF,16V
C5229	NCB31CK-104X	CAPACITOR	0.1µF,16V
C5230	NCB31CK-104X	CAPACITOR	0.1µF,16V
C5231	NCF31CZ-104X	CAPACITOR	0.1µF,16V
C5234	NCB21AK-105X	CAPACITOR	1µF,10V
C5235	NCF31CZ-104X	CAPACITOR	0.1µF,16V
C5237	NCF31CZ-104X	CAPACITOR	0.1µF,16V
C5239	NCF31EZ-104X	CAPACITOR	0.1µF,25V
C5240	NCF31CZ-104X	CAPACITOR	0.1µF,16V
C5241	NCB31CK-104X	CAPACITOR	0.1µF,16V
C6001	NCB11CK-105X	CAPACITOR	1µF,16V
C6002	NCB11CK-105X	CAPACITOR	1µF,16V
C6003	NCB31HK-561X	CAPACITOR	560pF,50V
C6004	NCB31CK-104X	CAPACITOR	0.1µF,16V
C6005	NCB31HK-102X	CAPACITOR	0.001µF,50V
C6006	NCB31HK-102X	CAPACITOR	0.001µF,50V
C6007	NCB31CK-104X	CAPACITOR	0.1µF,16V
C6008	NCB31EK-103X	CAPACITOR	0.01µF,25V
C6009	NCB21CK-224X	CAPACITOR	0.22µF,16V
C6010	NDC31HJ-391X	CAPACITOR	390pF,50V
C6011	NEA71CM-226X	E CAPACITOR	22µF,16V
C6012	NCB31CK-104X	CAPACITOR	0.1µF,16V
C6013	NCB31CK-104X	CAPACITOR	0.1µF,16V
C6014	NCB31EK-103X	CAPACITOR	0.01µF,25V
C6015	NCB31EK-223X	CAPACITOR	0.022µF,25V
C6016	NCB31CK-104X	CAPACITOR	0.1µF,16V
C6017	NCB31EK-103X	CAPACITOR	0.01µF,25V
C6018	NCB31HK-102X	CAPACITOR	0.001µF,50V
C6019	NCB31CK-104X	CAPACITOR	0.1µF,16V
C6020	NCB31HK-561X	CAPACITOR	560pF,50V
C6021	NCB31HK-102X	CAPACITOR	0.001µF,50V
C6022	NCB31HK-472X	CAPACITOR	0.0047µF,50V
C6023	NCB31HK-472X	CAPACITOR	0.0047µF,50V
C6024	NCB31EK-103X	CAPACITOR	0.01µF,25V
C6025	NCB31EK-223X	CAPACITOR	0.022µF,25V
C6026	NCB11CK-105X	CAPACITOR	1µF,16V
C6027	NCB11CK-225X	CAPACITOR	2.2µF,16V
C6028	NDC31HJ-101X	CAPACITOR	100pF,50V
C6029	NCB10JK-106X	CAPACITOR	10µF,6.3V
C6030	NEA71CM-106X	E CAPACITOR	10µF,16V
C6032	NCB11CK-105X	CAPACITOR	1µF,16V
C6033	NCB11CK-105X	CAPACITOR	1µF,16V
C6035	NCB11CK-105X	CAPACITOR	1µF,16V
C6036	NCB10JK-106X	CAPACITOR	10µF,6.3V
C6037	NDC31HJ-471X	CAPACITOR	470pF,50V
C6039	NCB11CK-105X	CAPACITOR	1µF,16V
C6040	NCB11CK-105X	CAPACITOR	1µF,16V
C6041	NCB11CK-105X	CAPACITOR	1µF,16V
C6042	NCB11CK-105X	CAPACITOR	1µF,16V
C6043	NCB11CK-105X	CAPACITOR	1µF,16V

# ⚠ REF No.	PART No.	PART NAME, DESCRIPTION	
C6044	NCB11CK-105X	CAPACITOR	1µF,1(
C6045	NCB11CK-105X	CAPACITOR	1µF,1(
C6046	NCB11CK-105X	CAPACITOR	1µF,1(
C6047	NCB31HK-102X	CAPACITOR	0.001µF,5(
C6048	NCB11CK-105X	CAPACITOR	1µF,1(
C6049	NCB11CK-105X	CAPACITOR	1µF,1(
C6050	NCB11CK-105X	CAPACITOR	1µF,1(
C6051	NCB11CK-105X	CAPACITOR	1µF,1(
C6052	NBP41DM-475X	T CAPACITOR	4.7µF,2(
C6053	NCB11CK-105X	CAPACITOR	1µF,1(
C6201	NEA71CM-106X	E CAPACITOR	10µF,1(
C7101	NCF31CZ-104X	CAPACITOR,SXM915U	0.1µF,1(
C7102	NCF31CZ-104X	CAPACITOR,SXM915U	0.1µF,1(
C7103	NCB31HK-102X	CAPACITOR,SXM915U	0.001µF,5(
C7105	NDC31HJ-270X	CAPACITOR,SXM915U	27pF,5(
C7108	NBE40JM-226X	T CAPACITOR	22µF,6.3
C7109	NBE20JM-106X	T CAPACITOR	10µF,6.3
C7112	NBE20JM-106X	T CAPACITOR	10µF,6.3
L101	NQL034K-330X	COIL	33µ
L102	NQL184J-100X	COIL	10µ
L501	NQR0129-002X	FERRITE BEAD	
L2001	NQL164K-101X	COIL	100µ
L2002	NQL164K-100X	COIL	10µ
L2401	NQL164K-470X	COIL	47µ
⚠ L3001	NQL315K-220X	COIL	22µ
⚠ L3003	NQL315K-220X	COIL	22µ
⚠ L3004	NQL315K-220X	COIL	22µ
L3005	NQL184J-120X	COIL	12µ
L3006	NQL085J-100X	COIL	10µ
L3007	NQL085J-120X	COIL	12µ
⚠ L3101	NQL315K-220X	COIL	22µ
⚠ L3102	NQL315K-220X	COIL	22µ
⚠ L3201	NQL315K-220X	COIL	22µ
L3202	NQL085J-820X	COIL	82µ
L3501	NQL315K-220X	COIL	22µ
L3502	NQL184J-331X	COIL	330µ
L3901	NQL315K-101X	COIL	100µ
L3902	NQL085J-560X	COIL	56µ
L3903	NQL085J-560X	COIL	56µ
L3904	NQL085J-1R5X	COIL	1.5µ
L4001	NQL164K-220X	COIL	22µ
L4002	NQL164K-101X	COIL	100µ
L4201	NQL315K-220X	COIL	22µ
L4501	NQL315K-100X	COIL	10µ
L4502	NQL164K-220X	COIL	22µ
L4503	NQL315K-220X	COIL	22µ
L5201	NQL164K-220X	COIL	22µ
L5203	NQL164K-101X	COIL	100µ
L5204	NQL164K-101X	COIL	100µ
L6001	NQLZ010-100X	COIL	10µ
L6002	NQLZ010-100X	COIL	10µ
L6003	NQL17CM-390X	COIL	39µ
L6004	NQLZ010-100X	COIL	10µ
L6005	NQL17CM-680X	COIL	68µ
L6006	NQL17CM-470X	COIL	47µ
L6008	NQL03BK-220X	COIL	22µ
L7101	NQL144K-100X	COIL,SXM915U	10µ
L7103	NQL144K-100X	COIL	10µ
X101	NAX0251-001X	CRYSTAL RESONATOR	
X102	NAX0267-001X	CRYSTAL RESONATOR	
X3001	QAX0517-001	CRYSTAL RESONATOR	

# ⚠ REF No.	PART No.	PART NAME, DESCRIPTION	
X5201	NAX0148-001X	CXO	
SW503	NSW0092-001X	SLIDE SWITCH	
T2001	NQR0002-001X	BIAS COIL	
T6001	NQS0029-001X	SW TRANSF	
WR1	WJZ0011-001D	E-HARNESS ASSY	
J502	YQ32092-3	BATTERY TERMINAL UNIT	
J503	PEMC1203	MINI JACK	
J504	LY30862-002B	JACK UNIT	
J505	QND0068-001	S JACK	
CN1	QGF0507F1-10X	FPC CONNECTOR	
CN2	QGF0510F2-14X	FPC CONNECTOR	
CN3	QGF0507F1-18X	FPC CONNECTOR	
CN4	QGA1201F2-02X	CONNECTOR	
CN5	QGF0507F1-11X	FPC CONNECTOR	
CN7	QGF0507F2-11X	FPC CONNECTOR	
CN8	QGA1201C2-02X	CONNECTOR	
CN11	QGF0507F1-20X	FPC CONNECTOR,SXM915U	
CN12	QGA1201F2-05X	CONNECTOR,SXM515U	
CN13	QGF0507F1-12X	FPC CONNECTOR	
CN14	QGA1201C2-02X	CONNECTOR	
CN15	QGF0510F2-22X	FPC CONNECTOR	
CN16	QGF0301F1-33X	FPC CONNECTOR	
CN18	QGF0510F2-14X	FPC CONNECTOR	
CN22	QGF0505F2-14X	FPC CONNECTOR	
CN25	QGB0801M1-30X	CONNECTOR	
CN26	QGA1201C2-02X	CONNECTOR	
CN27	QGA1201F2-02X	CONNECTOR	
⚠ F6001	NMFZ006-2R0X-K	FUSE	T2.0A
⚠ F6002	NMFZ006-2R0X-K	FUSE	T2.0A
F6003	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W
⚠ F6004	NMFZ006-R50X-K	FUSE,SXM515U	T0.5A
	NRSA02J-0R0X	MG RESISTOR,SXM915U	0Ω,1/10W
⚠ F6005	NMFZ006-R50X-K	FUSE	T0.5A
⚠ F7101	NMFZ006-R20X-K	FUSE,SXM915U	T0.2A
FL3201	NQR0296-001X	LC FILTER	
SD1	LY41184-001A	SHIELD CASE(U)	
SD2	LY41185-001B	SHIELD CASE(L)	
SD3	LY41364-001A	SHIELD PLATE	
SD4	LY41473-001A	SHIELD PLATE	

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CCD BOARD ASSEMBLY <02>

PW	YB20846A-01-SS	CCD BOARD ASSY	
Q5301	2SC3931/CD/-X	TRANSISTOR	
R5301	NRSA02J-105X	MG RESISTOR	1MΩ,1/10W
R5302	NRSA02J-562X	MG RESISTOR	5.6kΩ,1/10W
R5303	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W
R5304	NRSA02J-105X	MG RESISTOR	1MΩ,1/10W
C5301	NCF21EZ-104X	CAPACITOR	0.1μF,25V
C5302	NBP21EM-155X	T CAPACITOR	1.5μF,25V
C5303	NCB21HK-102X	CAPACITOR	0.001μF,50V
C5304	NCF21EZ-104X	CAPACITOR	0.1μF,25V
C5306	NDC21HJ-220X	CAPACITOR	22pF,50V

# ⚠ REF No.	PART No.	PART NAME, DESCRIPTION	

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BL BOARD ASSEMBLY(GR-SXM915U) <06>

PW2	YB20838B2-01	BL BOARD ASSY	
Q7301	2SK2742	POWER MOS FET	
R7301	NRSA63J-104X	MG RESISTOR	100kΩ,1/16W
C7301	NBP71CM-336X	T CAPACITOR	33μF,16V
C7302	NCF31CZ-104X	CAPACITOR	0.1μF,16V
L7301	NQL144K-100X	COIL	10μH
BL7301	NLL0006-001	LAMP	
T7301	NQH0006-001X	FB TRANSF	
CN7301	QGF0512C1-06X	FPC CONNECTOR	

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MONITOR BOARD ASSEMBLY <07>

PW	YB20848A-02	MONITOR BOARD ASSY,SXM515U	
	YB20848B-01	MONITOR BOARD ASSY,SXM915U	
IC7601	AN2533FH	IC	
IC7602	TA75S558F	IC	
IC7603	X25057M8-2.7-X	IC	
Q7501	2SC3647/ST/-X	POW TRANSISTOR	
Q7502	2SC3647/ST/-X	POW TRANSISTOR	
Q7503	DTA144EE	TRANSISTOR	
Q7504	2SC4617/QR/-X	TRANSISTOR	
Q7505	2SC4617/QR/-X	TRANSISTOR	
Q7506	2SC4617/QR/-X	TRANSISTOR	
Q7608	DTA144EE	TRANSISTOR	
Q7609	2SC4617/QR/-X	TRANSISTOR	
Q7610	2SA1774/QR/-X	TRANSISTOR	
Q7611	2SC4097/QR/-X	TRANSISTOR	
Q7612	2SA1577/QR/-X	TRANSISTOR	
Q7613	2SC4617/QR/-X	TRANSISTOR	
Q7614	2SA1774/QR/-X	TRANSISTOR	
Q7615	2SC4097/QR/-X	TRANSISTOR	
Q7616	2SA1577/QR/-X	TRANSISTOR	
D7601	RB471E	SB DIODE	
R7501	NRSA63J-102X	MG RESISTOR	1kΩ,1/16W
R7502	NRSA63J-102X	MG RESISTOR	1kΩ,1/16W
R7503	NRSA63J-102X	MG RESISTOR	1kΩ,1/16W
R7504	NRSA63J-563X	MG RESISTOR	56kΩ,1/16W
R7505	NRSA63J-223X	MG RESISTOR	22kΩ,1/16W
R7506	NRSA63J-473X	MG RESISTOR	47kΩ,1/16W
R7507	NRSA63J-473X	MG RESISTOR	47kΩ,1/16W
R7508	NRSA63J-223X	MG RESISTOR	22kΩ,1/16W
R7509	NRSA63J-103X	MG RESISTOR	10kΩ,1/16W
R7510	NRSA63J-563X	MG RESISTOR	56kΩ,1/16W
R7601	NRSA63J-102X	MG RESISTOR	1kΩ,1/16W
R7602	NRSA63J-102X	MG RESISTOR	1kΩ,1/16W
R7605	NRSA63J-512X	MG RESISTOR	5.1kΩ,1/16W
R7606	NRSA63J-104X	MG RESISTOR	100kΩ,1/16W
R7607	NRSA63J-104X	MG RESISTOR	100kΩ,1/16W
R7608	NRSA63J-101X	MG RESISTOR	100Ω,1/16W
R7609	NRSA63J-101X	MG RESISTOR	100Ω,1/16W
R7610	NRSA63J-101X	MG RESISTOR	100Ω,1/16W
R7611	NRVA63D-222X	CMF RESISTOR	2.2kΩ,1/16W

# ⚠ REF No.	PART No.	PART NAME, DESCRIPTION	
R7612	NRVA63D-222X	CMF RESISTOR	2.2kΩ,1/16W
R7613	NRVA63D-222X	CMF RESISTOR	2.2kΩ,1/16W
R7614	NRVA63D-222X	CMF RESISTOR	2.2kΩ,1/16W
R7615	NRVA63D-222X	CMF RESISTOR	2.2kΩ,1/16W
R7616	NRVA63D-222X	CMF RESISTOR	2.2kΩ,1/16W
R7617	NRSA63J-100X	MG RESISTOR	10Ω,1/16W
R7618	NRSA63J-100X	MG RESISTOR	10Ω,1/16W
R7619	NRSA63J-100X	MG RESISTOR	10Ω,1/16W
R7620	NRSA63J-103X	MG RESISTOR	10kΩ,1/16W
R7621	NRSA63J-103X	MG RESISTOR	10kΩ,1/16W
R7622	NRSA63J-104X	MG RESISTOR	100kΩ,1/16W
R7624	NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W
R7626	NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W
R7629	NRSA63J-103X	MG RESISTOR	10kΩ,1/16W
R7630	NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W
R7634	NRSA63J-561X	MG RESISTOR	560Ω,1/16W
R7635	NRSA63J-101X	MG RESISTOR	100Ω,1/16W
R7638	NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W
R7642	NRSA63J-223X	MG RESISTOR	22kΩ,1/16W
R7643	NRVA63D-303X	CMF RESISTOR	30kΩ,1/16W
R7644	NRSA63J-302X	MG RESISTOR,SXM515U	3kΩ,1/16W
	NRSA63J-912X	MG RESISTOR,SXM915U	9.1kΩ,1/16W
R7645	NRVA63D-683X	CMF RESISTOR	68kΩ,1/16W
R7646	NRSA63J-563X	MG RESISTOR	56kΩ,1/16W
R7647	NRSA63J-223X	MG RESISTOR,SXM915U	22kΩ,1/16W
R7648	NRSA63J-223X	MG RESISTOR,SXM915U	22kΩ,1/16W
R7649	NRSA63J-333X	MG RESISTOR,SXM915U	33kΩ,1/16W
R7650	NRSA63J-103X	MG RESISTOR,SXM515U	10kΩ,1/16W
R7651	NRSA63J-101X	MG RESISTOR	100Ω,1/16W
R7652	NRSA63J-154X	MG RESISTOR	150kΩ,1/16W
R7655	NRSA63J-102X	MG RESISTOR	1kΩ,1/16W
R7657	NRSA63J-155X	MG RESISTOR,SXM915U	1.5MΩ,1/16W
	NRSA63J-335X	MG RESISTOR,SXM515U	3.3MΩ,1/16W
R7658	NRSA63J-333X	MG RESISTOR	33kΩ,1/16W
R7659	NRSA63J-333X	MG RESISTOR	33kΩ,1/16W
R7660	NRSA63J-102X	MG RESISTOR,SXM915U	1kΩ,1/16W
	NRSA63J-222X	MG RESISTOR,SXM515U	2.2kΩ,1/16W
R7661	NRSA63J-102X	MG RESISTOR	1kΩ,1/16W
R7664	NRSA63J-103X	MG RESISTOR	10kΩ,1/16W
R7665	NRSA63J-153X	MG RESISTOR	15kΩ,1/16W
R7666	NRSA63J-153X	MG RESISTOR	15kΩ,1/16W
R7667	NRSA63J-102X	MG RESISTOR,SXM915U	1kΩ,1/16W
	NRSA63J-222X	MG RESISTOR,SXM515U	2.2kΩ,1/16W
R7668	NRSA63J-101X	MG RESISTOR,SXM515U	100Ω,1/16W
	NRSA63J-221X	MG RESISTOR,SXM915U	220Ω,1/16W
R7670	NRSA63J-102X	MG RESISTOR	1kΩ,1/16W
R7674	NRSA63J-101X	MG RESISTOR	100Ω,1/16W
R7675	NRSA63J-101X	MG RESISTOR	100Ω,1/16W
C7501	NCZ1021-270X	CAPACITOR	27pF,2kV
C7502	NCZ1021-270X	CAPACITOR,SXM515U	27pF,2kV
	NCZ1021-390X	CAPACITOR,SXM915U	39pF,2kV
C7503	NFV41HJ-223X	MPPS CAPACITOR,SXM915U	0.022μF,50V
	NFV41HJ-393X	MPPS CAPACITOR,SXM515U	0.039μF,50V
C7504	NCB31EK-103X	CAPACITOR	0.01μF,25V
C7505	NBE51AM-476X	T CAPACITOR	47μF,10V
C7506	NCB31EK-103X	CAPACITOR	0.01μF,25V
C7507	NDC31HJ-151X	CAPACITOR	150pF,50V
C7508	NCB11CK-105X	CAPACITOR	1μF,16V
C7509	NCB31CK-104X	CAPACITOR	0.1μF,16V
C7510	NCB31HK-562X	CAPACITOR	0.0056μF,50V
C7601	NCB31EK-223X	CAPACITOR	0.022μF,25V

# ⚠ REF No.	PART No.	PART NAME, DESCRIPTION	
C7602	NCB11CK-105X	CAPACITOR	1μF,16
C7603	NDC31HJ-330X	CAPACITOR	33pF,50
C7604	NCB31CK-104X	CAPACITOR	0.1μF,16
C7605	NCB31CK-104X	CAPACITOR	0.1μF,16
C7606	NBE51AM-476X	T CAPACITOR	47μF,10
C7607	NCB11CK-105X	CAPACITOR	1μF,16
C7608	NBE20JM-106X	T CAPACITOR	10μF,6.3
C7609	NCB31CK-104X	CAPACITOR	0.1μF,16
C7610	NCB31CK-104X	CAPACITOR	0.1μF,16
C7611	NBE21AM-225X	T CAPACITOR	2.2μF,10
C7612	NCB31CK-104X	CAPACITOR	0.1μF,16
C7613	NBE21AM-225X	T CAPACITOR	2.2μF,10
C7614	NBE21AM-225X	T CAPACITOR	2.2μF,10
C7615	NBP51DM-226X	T CAPACITOR	22μF,20
C7616	NBE20JM-475X	T CAPACITOR	4.7μF,6.3
C7617	NBE20JM-475X	T CAPACITOR	4.7μF,6.3
C7618	NBE20JM-475X	T CAPACITOR	4.7μF,6.3
C7619	NDC31HJ-100X	CAPACITOR	10pF,50
C7620	NDC31HJ-100X	CAPACITOR	10pF,50
C7621	NDC31HJ-100X	CAPACITOR	10pF,50
C7622	NCB31CK-104X	CAPACITOR	0.1μF,16
C7623	NBE20JM-106X	T CAPACITOR	10μF,6.3
C7624	NCB31HK-822X	CAPACITOR	0.0082μF,50
C7625	NBE20JM-475X	T CAPACITOR	4.7μF,6.3
C7626	NBE20JM-106X	T CAPACITOR	10μF,6.3
C7627	NDC31HJ-151X	CAPACITOR	150pF,50
C7628	NDC31HJ-471X	CAPACITOR	470pF,50
C7630	NCB11CK-105X	CAPACITOR	1μF,16
C7632	NCB31CK-104X	CAPACITOR	0.1μF,16
C7633	NCF31AZ-105X	CAPACITOR	1μF,10
C7634	NBE20JM-106X	T CAPACITOR	10μF,6.3
C7635	NCB31CK-104X	CAPACITOR	0.1μF,16
C7637	NCF31AZ-105X	CAPACITOR	1μF,10
C7638	NCB31CK-104X	CAPACITOR	0.1μF,16
C7639	NBE20JM-106X	T CAPACITOR	10μF,6.3
C7640	NCB31CK-104X	CAPACITOR	0.1μF,16
C7641	NCB31CK-104X	CAPACITOR	0.1μF,16
C7642	NCB31CK-104X	CAPACITOR	0.1μF,16
C7643	NBP21CM-225X	T CAPACITOR	2.2μF,16
C7644	NBP41EM-475X	T CAPACITOR	4.7μF,25
C7645	NBE20JM-475X	T CAPACITOR	4.7μF,6.3
C7646	NBP41EM-475X	T CAPACITOR	4.7μF,25
C7647	NCB31EK-103X	CAPACITOR,SXM915U	0.01μF,25
C7648	NBE21AM-335X	T CAPACITOR	3.3μF,10
C7649	NBP21DM-335X	T CAPACITOR	3.3μF,20
C7650	NCB31HK-681X	CAPACITOR	680pF,50
C7651	NCB31CK-104X	CAPACITOR	0.1μF,16
C7652	NCB31HK-102X	CAPACITOR	0.001μF,50
C7653	NCB31HK-102X	CAPACITOR	0.001μF,50
C7654	NCB31HK-471X	CAPACITOR	470pF,50
C7655	NCB31HK-471X	CAPACITOR	470pF,50
C7656	NCB31HK-471X	CAPACITOR	470pF,50
L7501	NQLZ007-680X	COIL	68μ
L7502	NQLZ007-220X	COIL	22μ
L7602	NQL144K-220X	COIL	22μ
L7603	NQL144K-220X	COIL	22μ
L7604	NQL144K-220X	COIL	22μ
L7605	NQL144K-220X	COIL	22μ
L7606	NQL144K-220X	COIL	22μ
L7607	NQL144K-220X	COIL,SXM915U	22μ
L7608	NQL144K-220X	COIL	22μ

# ⚠ REF No.	PART No.	PART NAME, DESCRIPTION	
L7609	NQL144K-220X	COIL,SXM515U	22µH
X7601	NAX0290-001X	CRYSTAL RESONATOR	
T7501	NQS0030-001	SW TRANSF,SXM515U	
	NQS0030-002	SW TRANSF,SXM915U	
CN7501	QGF0505F2-30X	FPC CONNECTOR	
CN7502	QGF0501F1-24X	FPC CONNECTOR	
CN7503	QGA5002F1-02X	CONNECTOR	
⚠ F7501	NMFZ001-R40X-J1	FUSE	T0.4A
OT1	LY41084-001B	EARTH PLATE	

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VF BOARD ASSEMBLY(GR-SXM915U) <10>

PW1	YB20838B1-01	VF BOARD ASSY	
IC7201	CXA2503AR	IC	
Q7201	2SC4655/BC/-X	TRANSISTOR	
D7201	MA365	VARI CAP DIODE	
R7201	NRSA63J-222X	MG RESISTOR	2.2kΩ,1/16W
R7202	NRSA63J-222X	MG RESISTOR	2.2kΩ,1/16W
R7203	NRSA63J-272X	MG RESISTOR	2.7kΩ,1/16W
R7204	NRSA63J-561X	MG RESISTOR	560Ω,1/16W
R7205	NRSA63J-104X	MG RESISTOR	100kΩ,1/16W
R7206	NRSA63J-274X	MG RESISTOR	270kΩ,1/16W
R7207	NRSA63J-103X	MG RESISTOR	10kΩ,1/16W
R7208	NRSA63J-102X	MG RESISTOR	1kΩ,1/16W
R7209	NRSA63J-333X	MG RESISTOR	33kΩ,1/16W
R7210	NRSA63J-103X	MG RESISTOR	10kΩ,1/16W
R7211	NRVA63D-122X	CMF RESISTOR	1.2kΩ,1/16W
R7212	NRVA63D-182X	CMF RESISTOR	1.8kΩ,1/16W
R7213	NRVA63D-153X	CMF RESISTOR	15kΩ,1/16W
R7214	NRVA63D-272X	CMF RESISTOR	2.7kΩ,1/16W
R7215	NRVA63D-153X	CMF RESISTOR	15kΩ,1/16W
R7216	NRVA63D-153X	CMF RESISTOR	15kΩ,1/16W
R7218	NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W
R7220	NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W
R7221	NRVA63D-563X	CMF RESISTOR	56kΩ,1/16W
R7222	NRVA63D-393X	CMF RESISTOR	39kΩ,1/16W
R7223	NRSA63J-103X	MG RESISTOR	10kΩ,1/16W
R7224	NRSA63J-102X	MG RESISTOR	1kΩ,1/16W
R7225	NRSA63J-102X	MG RESISTOR	1kΩ,1/16W
R7226	NRSA63J-563X	MG RESISTOR	56kΩ,1/16W
R7227	NRSA63J-223X	MG RESISTOR	22kΩ,1/16W
R7229	NRSA63J-101X	MG RESISTOR	100Ω,1/16W
R7230	NRSA63J-101X	MG RESISTOR	100Ω,1/16W
R7231	NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W
C7201	NCB31EK-103X	CAPACITOR	0.01µF,25V
C7202	NCB21EK-333X	CAPACITOR	0.033µF,25V
C7203	NCB11CK-105X	CAPACITOR	1µF,16V
C7204	NCF11CZ-225X	CAPACITOR	2.2µF,16V
C7205	NCB31HK-332X	CAPACITOR	0.0033µF,50V
C7206	NCB31EK-103X	CAPACITOR	0.01µF,25V
C7207	NDC31HJ-221X	CAPACITOR	220pF,50V
C7208	NDC31HJ-560X	CAPACITOR	56pF,50V
C7209	NCF21CZ-105X	CAPACITOR	1µF,16V
C7210	NCB11CK-105X	CAPACITOR	1µF,16V
C7211	NCB31EK-103X	CAPACITOR	0.01µF,25V
C7212	NCF21CZ-105X	CAPACITOR	1µF,16V
C7213	NCF31CZ-104X	CAPACITOR	0.1µF,16V
C7214	NCF31CZ-104X	CAPACITOR	0.1µF,16V
C7215	NCF31CZ-104X	CAPACITOR	0.1µF,16V
C7216	NCF31CZ-104X	CAPACITOR	0.1µF,16V
C7217	NCB31EK-103X	CAPACITOR	0.01µF,25V
C7218	NBP41CM-106X	T CAPACITOR	10µF,16V
C7219	NCB31EK-103X	CAPACITOR	0.01µF,25V
C7220	NBE20JM-106X	T CAPACITOR	10µF,6.3V
C7221	NCF31CZ-104X	CAPACITOR	0.1µF,16V
C7222	NCF31CZ-104X	CAPACITOR	0.1µF,16V
C7223	NCB31EK-103X	CAPACITOR	0.01µF,25V
C7224	NCB31CK-333X	CAPACITOR	0.033µF,16V
C7225	NCF31CZ-104X	CAPACITOR	0.1µF,16V
C7226	NRSA63J-102X	MG RESISTOR	1kΩ,1/16W
C7227	NCB11CK-105X	CAPACITOR	1µF,16V
C7228	NCB31EK-103X	CAPACITOR	0.01µF,25V
C7229	NCF21CZ-105X	CAPACITOR	1µF,16V
C7230	NBE20JM-106X	T CAPACITOR	10µF,6.3V
L7201	NQL144K-100X	COIL	10µH
L7202	NQL144K-100X	COIL	10µH
L7203	NQL144K-100X	COIL	10µH
L7204	NQL184J-120X	COIL	12µH
L7205	NQL144K-100X	COIL	10µH
X7201	NAX0084-001X	CRYSTAL RESONATOR	
CN7201	QGF0503C1-18X	FFC/FPC CONNECTOR	
CN7202	QGF0503C1-16X	FFC/FPC CONNECTOR	

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OPERATION(DECK)UNIT <20>

PW	LY10120-008C	OPERATION(DECK)UNIT

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ZOOM UNIT <21>

PW	LY10121-001C	ZOOM UNIT

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E.VF BOARD ASSEMBLY(GR-SXM515U) <50>

PW	LY41289-001A	VF BOARD ASSY	
IC7001	BA7149F-XE	IC	
Q7001	2SD968A(RS)	PH TRANSISTOR	
Q7002	2SA1748(QR)	PH TRANSISTOR	
Q7003	2SA1748(QR)	PH TRANSISTOR	
D7001	MA142WA	DIODE	
R7002	NRSA02J-3R9X	MG RESISTOR	3.9Ω,1/10W
R7003	NRVA02D-153X	CMF RESISTOR	15kΩ,1/10W
R7005	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W
R7006	NRSA02J-113X	MG RESISTOR	11kΩ,1/10W
R7007	NRSA02J-330X	MG RESISTOR	33Ω,1/10W
R7008	NRSA02J-394X	MG RESISTOR	390kΩ,1/10W
R7009	NRSA02J-103X	MG RESISTOR	10kΩ,1/10W

# ⚠ REF No.	PART No.	PART NAME, DESCRIPTION	
R7010	NRVA02D-104X	CMF RESISTOR	100kΩ,1/10W
R7011	NRSA02J-223X	MG RESISTOR	22kΩ,1/10W
R7012	NRSA02J-221X	MG RESISTOR	220Ω,1/10W
R7013	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W
R7014	NRSA02J-472X	MG RESISTOR	4.7kΩ,1/10W
R7015	NRSA02J-223X	MG RESISTOR	22kΩ,1/10W
R7016	NRSA02J-122X	MG RESISTOR	1.2kΩ,1/10W
R7017	NRSA02J-472X	MG RESISTOR	4.7kΩ,1/10W
R7018	NRSA02J-223X	MG RESISTOR	22kΩ,1/10W
R7019	NRSA02J-120X	MG RESISTOR	12Ω,1/10W
R7020	NRS181J-685X	MG RESISTOR	6.8MΩ,1/8W
R7021	NRSA02J-475X	MG RESISTOR	4.7MΩ,1/10W
R7022	NRSA02J-475X	MG RESISTOR	4.7MΩ,1/10W
R7023	NRSA02J-564X	MG RESISTOR	560kΩ,1/10W
R7024	NRSA02J-105X	MG RESISTOR	1MΩ,1/10W
R7025	NRSA02J-275X	MG RESISTOR	2.7MΩ,1/10W
R7026	NRSA02J-275X	MG RESISTOR	2.7MΩ,1/10W
R7029	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W
R7030	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W
VR7001	NVP0001-221X	TRIM RESISTOR,V SIZE	
VR7002	NVP0001-225X	TRIM RESISTOR,BRIGHT	
VR7003	PERE0595-565	V RESISTOR,FOCUS	
C7001	QFV21HJ-104AZ	F CAPACITOR	0.1μF,50V
C7002	QEDP1AM-227	E CAPACITOR	220μF,10V
C7003	QEDP1AM-227	E CAPACITOR	220μF,10V
C7004	QEDP1AM-227	E CAPACITOR	220μF,10V
C7005	NCF21CZ-105X	CAPACITOR	1μF,16V
C7006	NCB21HK-152X	CAPACITOR	0.0015μF,50V
C7007	NCB11CK-105X	CAPACITOR	1μF,16V
C7008	NCF21CZ-105X	CAPACITOR	1μF,16V
C7009	PECA1131-A107	E CAPACITOR	100μF,10V
C7010	PECA1135-Y	CAPACITOR	5600pF,100V
C7011	NDC21HJ-180X	CAPACITOR	18pF,50V
C7012	QEKC1HM-105	E CAPACITOR	1μF,50V
C7013	NCF21HZ-104X	CAPACITOR	0.1μF,50V
C7014	NCF21HZ-104X	CAPACITOR	0.1μF,50V
C7015	QCZ0136-151Z	CAPACITOR	150pF,1KV
C7016	PECA1133	CAPACITOR	100pF,500V
L7001	QQR0970-001	LINEARITY COIL	
L7002	PU49993-101	COIL	100μH
L7003	PELN1101-680JY	COIL	68μH
⚠ T7001	QQH0011-002	FB TRANSF	
CN7001	PEMC0856-4	CONNECTOR	
CN7002	WJL0002-001A	E-SI C WIRE B-B	
CN7003	WJK0025-001A	E-SI C WIRE C-B	

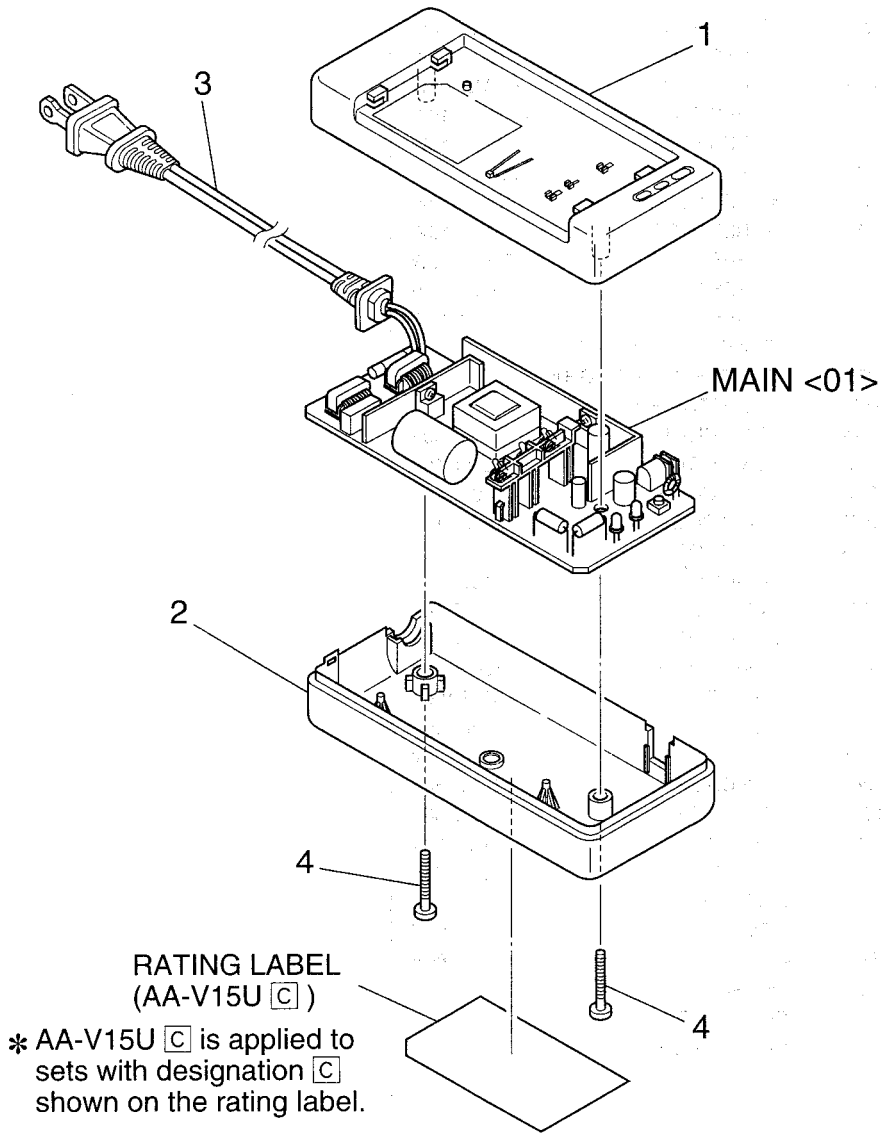
# ⚠ REF No.	PART No.	PART NAME, DESCRIPTION

SECTION 6
AC POWER ADAPTER (AA-V15U[C])

SAFETY PRECAUTION

Parts identified by the ⚠ symbol are critical for safety. Replace only with specified part numbers.

6.1 CABINET ASSEMBLY <M2>



#REF No.	PART No.	PART NAME, DESCRIPTION

****

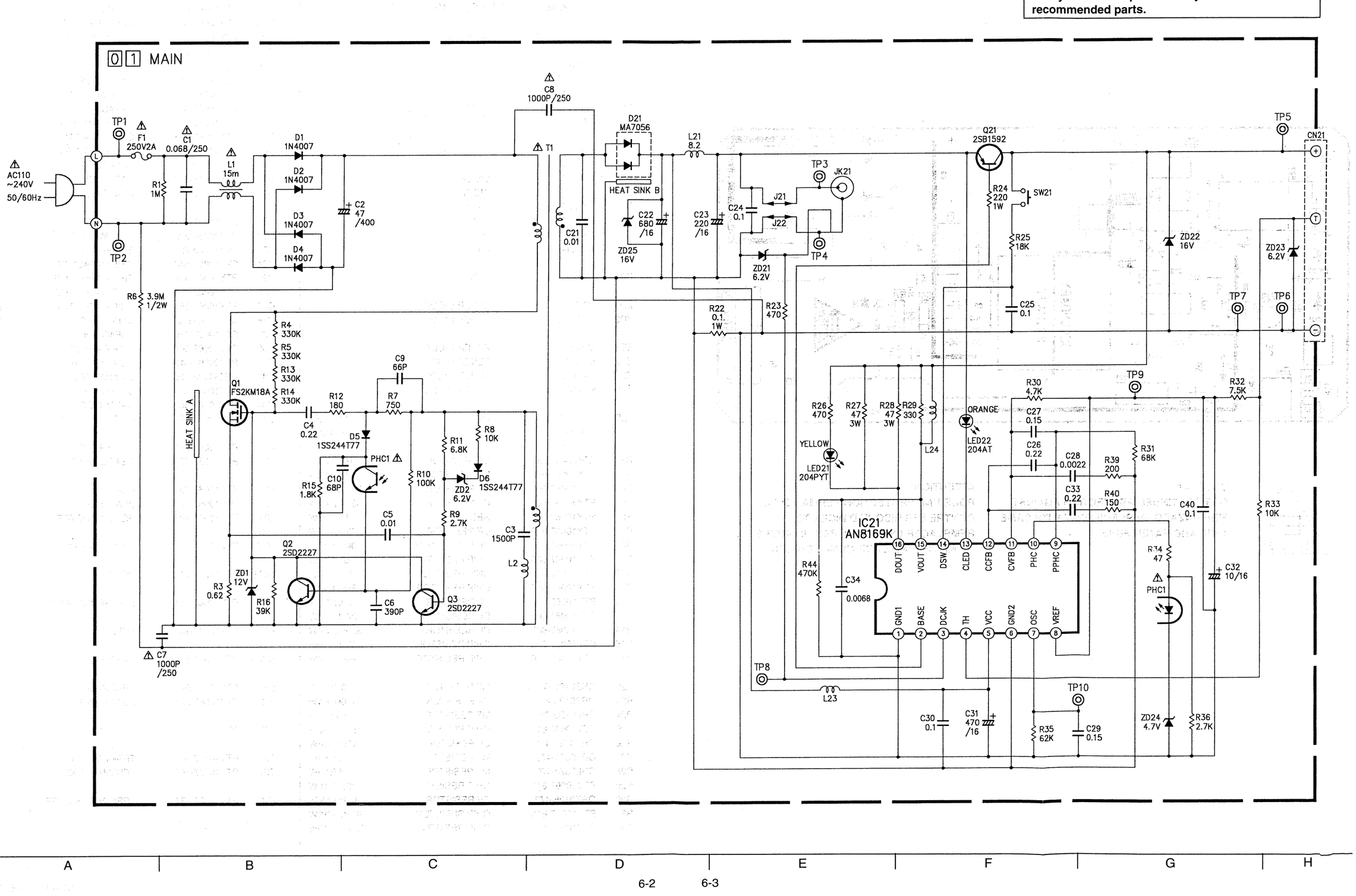
CABINET ASSEMBLY <M2>

	1	PTY10067-002	UPPER CASE ASSY
	2	PTY10067-012	LOWER CASE
⚠	3	YQ10531-057	POWER CORD
	4	YQ10531-011	SCREW , X2

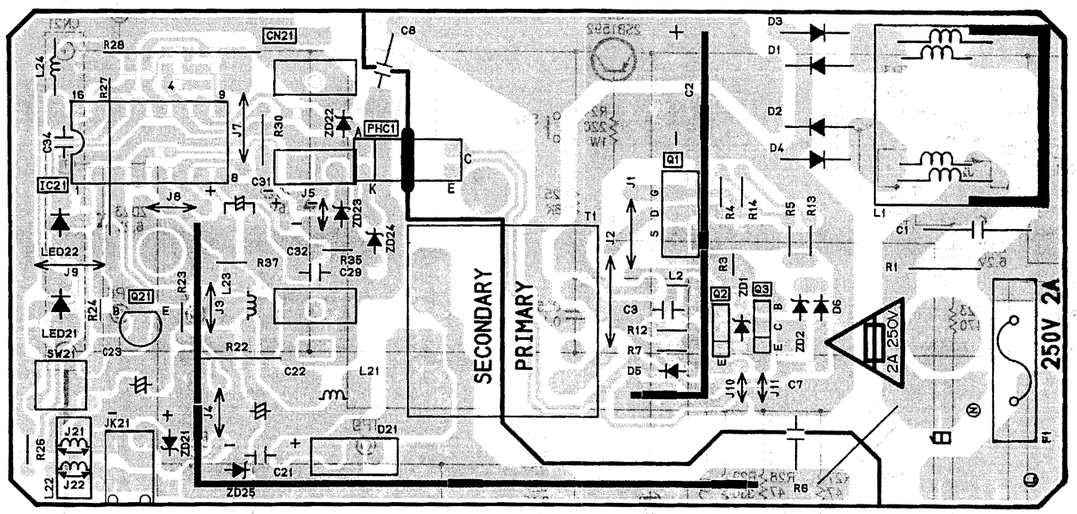
6.2 SCHEMATIC DIAGRAM

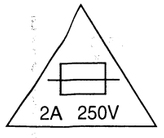
NOTE: When ordering parts, be sure to order according to the Part Number indicated in the Parts List.

Safety precautions
The components identified by the symbol ⚠ are critical for safety. For continued safety, replace safety critical components only with manufacturer's recommended parts.



6.3 CIRCUIT BOARD





CAUTION:
FOR CONTINUED PROTECTION AGAINST FIRE HAZARD, REPLACE ONLY WITH SAME TYPE AND RATED FUSE.

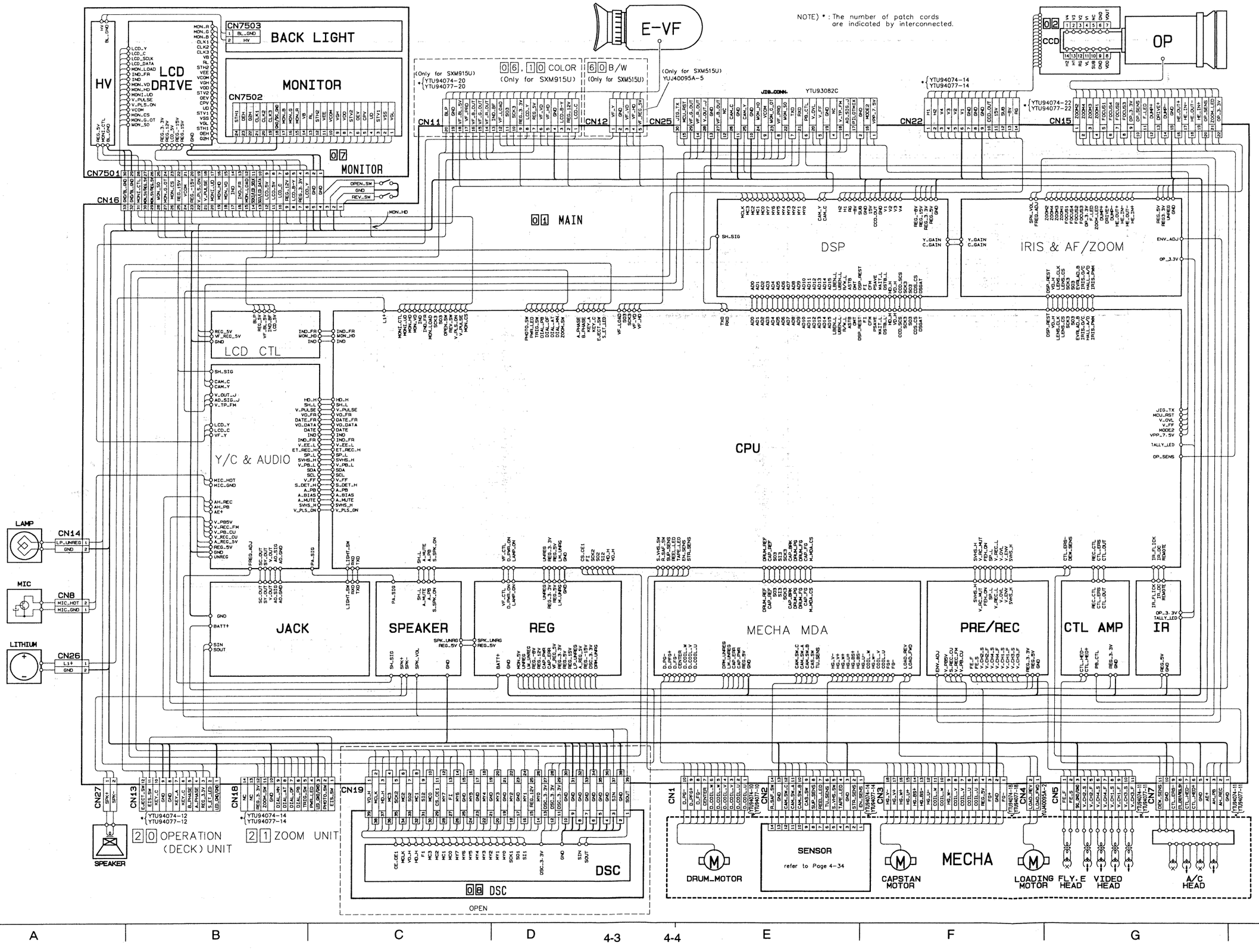
ATTENTION:
POUR UNE PROTECTION PERMANENTE CONTRE LES RISQUE D'INCENDE, REMPLACER LE FUSIBLE PAR UN AUTRE DE MEME TYPE ET DE MEME TENSION.

6.4 ELECTRICAL PARTS LIST

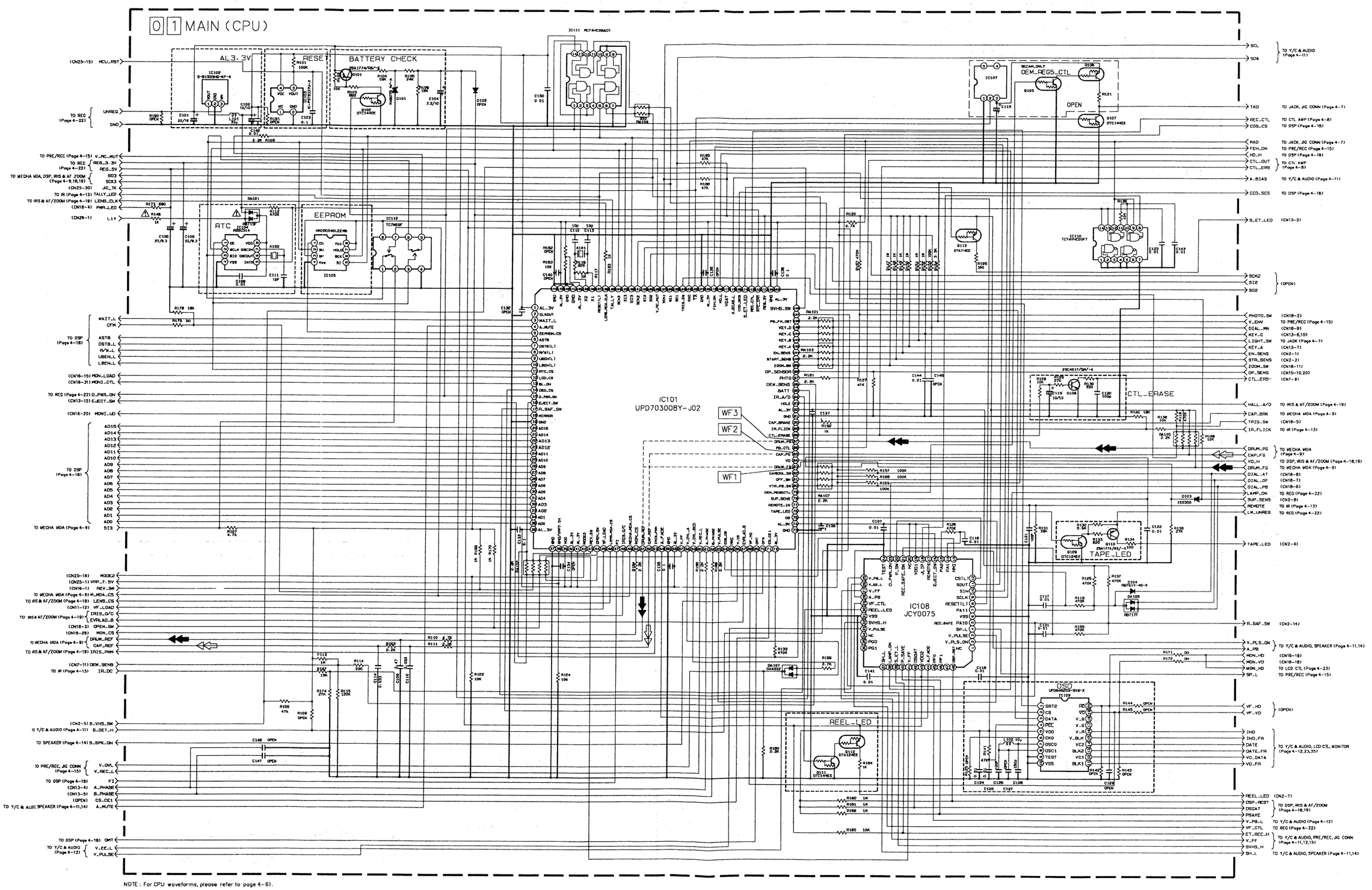
#REF No.	PART No.	PART NAME, DESCRIPTION	
**********			
		MAIN BOARD ASSEMBLY <01>	
⚠ PW1	PTY10067-503	MAIN BOARD ASSY	
IC21	AN8169K	IC	
Q1	FS2KM18A	FET	
Q2	2SD2227	TRANSISTOR	
Q3	2SD2227	TRANSISTOR	
Q21	2SB1592	TRANSISTOR	
D1	1N4007	DIODE	
D2	1N4007	DIODE	
D3	1N4007	DIODE	
D4	1N4007	DIODE	
D5	1SS244T77	DIODE	
D6	1SS244T77	DIODE	
D21	MA7D56	DIODE	
ZD1	MTZ12	ZENER DIODE	
ZD2	MTZ6R2	ZENER DIODE	
ZD21	MA4062	ZENER DIODE	
ZD22	MA4160	ZENER DIODE	
ZD23	MA4062	ZENER DIODE	
ZD24	MA4047NM	ZENER DIODE	
LED21	YQ10531-543	LED	YELLOW
LED22	YQ10531-541	LED	ORANGE
R1	QRN141J-105	CF RESISTOR	1MΩ,1/4W
R3	PTY10067-601	MF RESISTOR	0.62Ω,1W
R4	PTY10067-602	CF RESISTOR	330kΩ,1/4W
R5	PTY10067-602	CF RESISTOR	330kΩ,1/4W
R6	PTY10067-603	RESISTOR	3.9MΩ,1/2W
R7	PTY10067-619	CF RESISTOR	750Ω,1/4W
R8	PTY10067-604	CHIP RESISTOR	10kΩ,1/10W
R9	PTY10067-605	CHIP RESISTOR	2.7kΩ,1/10W
R10	PTY10067-606	CHIP RESISTOR	100kΩ,1/10W
R11	PTY10067-607	CHIP RESISTOR	6.8kΩ,1/10W
R12	PTY10067-608	CF RESISTOR	180Ω,1/4W
R13	PTY10067-602	CF RESISTOR	330kΩ,1/4W
R14	PTY10067-602	CF RESISTOR	330kΩ,1/4W
R15	PTY10067-609	CHIP RESISTOR	1.8kΩ,1/10W
R16	PTY10067-610	CHIP RESISTOR	39kΩ,1/10W
R22	QRZ0192-R10X	MF RESISTOR	0.1Ω,1W
R23	QRZ0125-471	CF RESISTOR	470Ω,1/4W
R24	QRL01DJ-221X	MF RESISTOR	200Ω,1W
R25	PTY10067-611	CHIP RESISTOR	18kΩ,1/10W
R26	QRZ0125-471	CF RESISTOR	470Ω,1/4W
R27	QRL037J-470	MF RESISTOR	47Ω,3W
R28	QRL037J-470	MF RESISTOR	47Ω,3W
R29	PTY10067-612	CHIP RESISTOR	330Ω,1/10W
R30	QRZ0125-472	CF RESISTOR	4.7kΩ,1/4W
R31	PTY10067-613	CHIP RESISTOR	68kΩ,1/10W
R32	PTY10067-614	CHIP RESISTOR	7.5kΩ,1/10W

#REF No.	PART No.	PART NAME, DESCRIPTION	
R33	PTY10067-604	CHIP RESISTOR	10kΩ,1/10W
R34	PTY10067-615	CHIP RESISTOR	47Ω,1/10W
R35	PTY10067-616	MF RESISTOR	62kΩ,1/4W
R36	PTY10067-605	CHIP RESISTOR	2.7kΩ,1/10W
R39	PTY10067-617	CHIP RESISTOR	200Ω,1/10W
R40	PTY10067-618	CHIP RESISTOR	150Ω,1/10W
⚠ C1	YQ10626-401	CAPACITOR	0.068uF,250V
C2	YQ10626-402	E CAPACITOR	47uF,400V
C3	PTY10067-651	CAPACITOR	1500pF,250V
C4	PTY10067-652	CHIP CAPACITOR	0.22uF,16V
C5	PTY10067-653	CHIP CAPACITOR	0.01uF,50V
C6	PTY10067-654	CHIP CAPACITOR	390pF,50V
⚠ C7	YQ10531-514	CAPACITOR	1000pF,250V
⚠ C8	PTY10067-655	CAPACITOR	1000pF,250V
C9	PTY10067-656	CHIP CAPACITOR	68pF,50V
C21	PTY10067-657	CAPACITOR	0.01uF,250V
C22	PTY20080-522	E CAPACITOR	680uF,16V
C23	QETA1CM-227	E CAPACITOR	220uF,16V
C24	PTY10067-658	CHIP CAPACITOR	0.1uF,25V
C25	PTY10067-658	CHIP CAPACITOR	0.1uF,25V
C26	PTY10067-652	CHIP CAPACITOR	0.22uF,16V
C27	PTY10067-659	CHIP CAPACITOR	0.15uF,25V
C28	QFLA1HJ-222	CAPACITOR	0.0022uF,50V
C29	PTY10067-660	CAPACITOR	0.15uF,50V
C30	PTY10067-661	CHIP CAPACITOR	0.1uF,25V
C31	PTY20292-310	E CAPACITOR	470uF,16V
C32	QETA1CM-106	E CAPACITOR	10uF,16V
C33	PTY10067-652	CHIP CAPACITOR	0.22uF,16V
C34	PTY10067-662	CAPACITOR	0.0068uF,50V
C40	PTY10067-661	CHIP CAPACITOR	0.1uF,25V
⚠ L1	PTY10067-701	LINE FILTER	
L2	PTY10067-702	BEAD INDUCTOR	
L21	PTY10067-703	COIL	
L23	PTY10067-704	BEAD INDUCTOR	
L24	PTY10067-705	BEAD INDUCTOR	
⚠ PHC1	PC817X1	PHOTO COUPLER	
JK21	YQ10531-570	DC JACK	
⚠ T1	PTY20080-541	SW TRANSFORMER	
⚠ F1	PTY10067-101	FUSE	250V,2A
SW21	PTY10067-531	SWITCH	
HS1	PTY10067-541	HEAT SINK A	
HS2	PTY10067-542	HEAT SINK B	
OT1	PTY10067-551	SCREW,X2	
TB1	PTY10067-561	TERMINAL 1,X2	
TB2	PTY10067-562	TERMINAL 2,X3	
HD1	PTY10067-571	TERMINAL HOLDER	

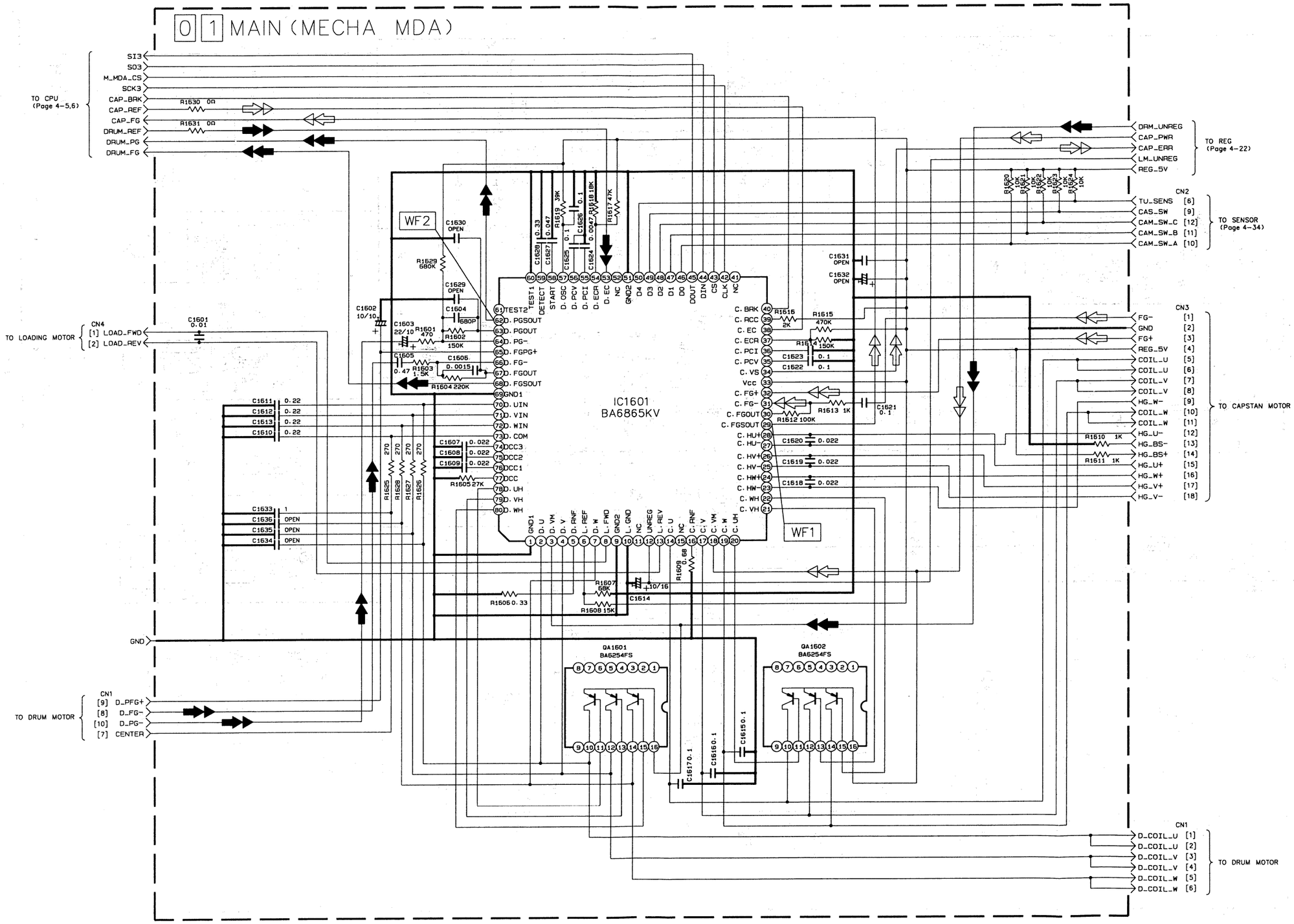
4.1 BOARD INTERCONNECTIONS



4.2 CPU SCHEMATIC DIAGRAM

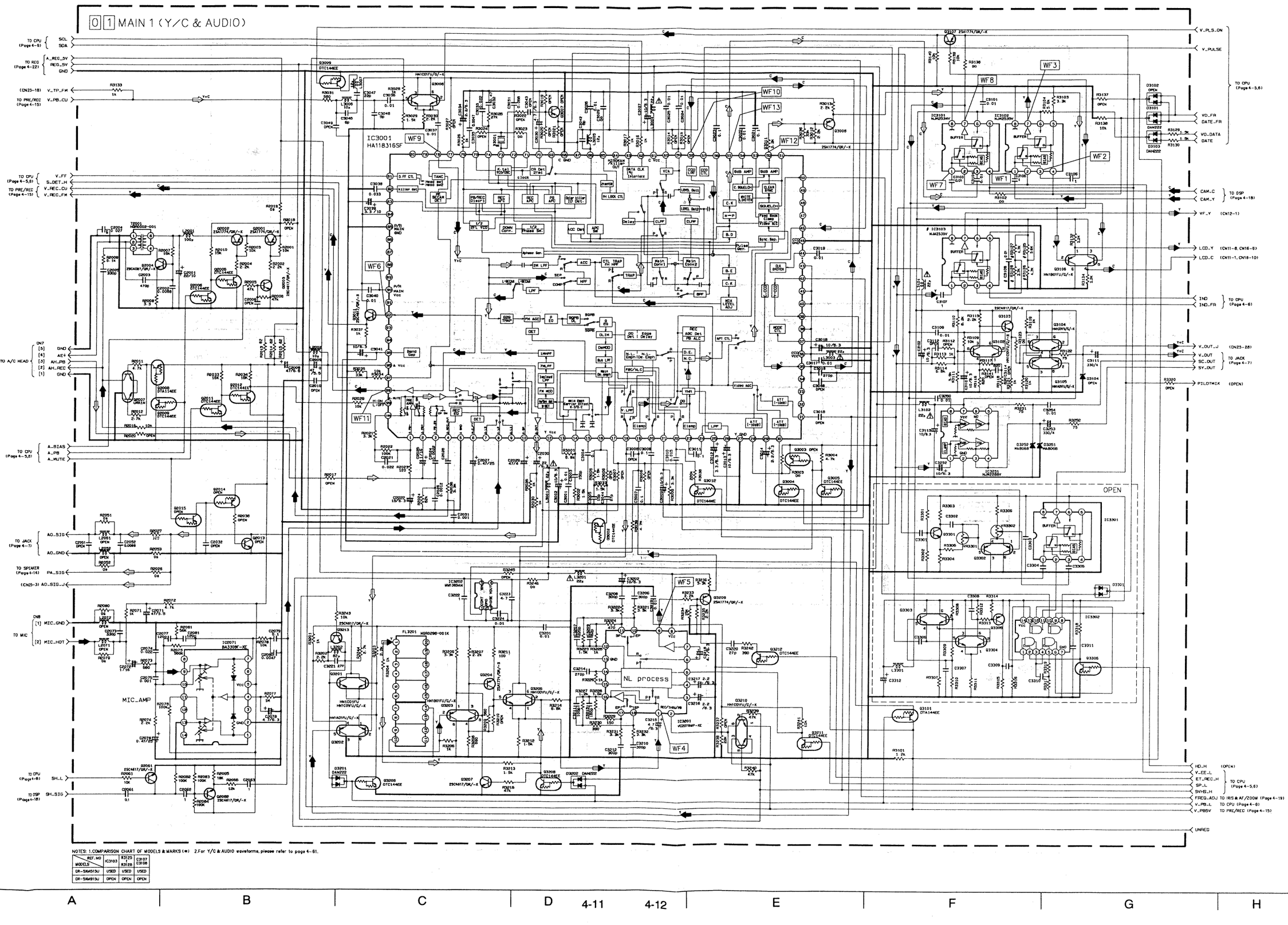


4.5 MECHA MDA SCHEMATIC DIAGRAM



NOTE : For MECHA MDA waveforms, please refer to page 4-61.

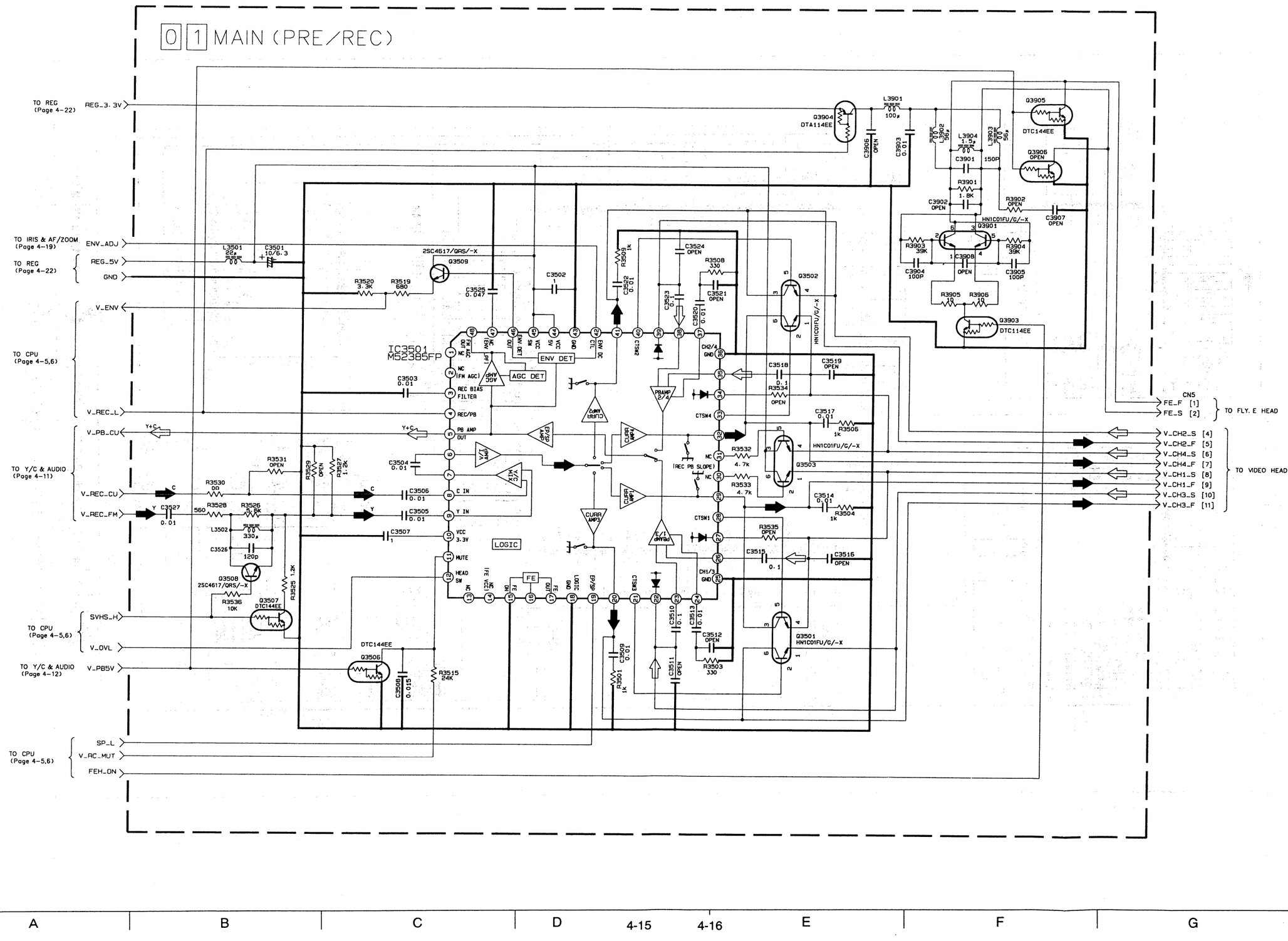
4.6 Y/C & AUDIO SCHEMATIC DIAGRAM



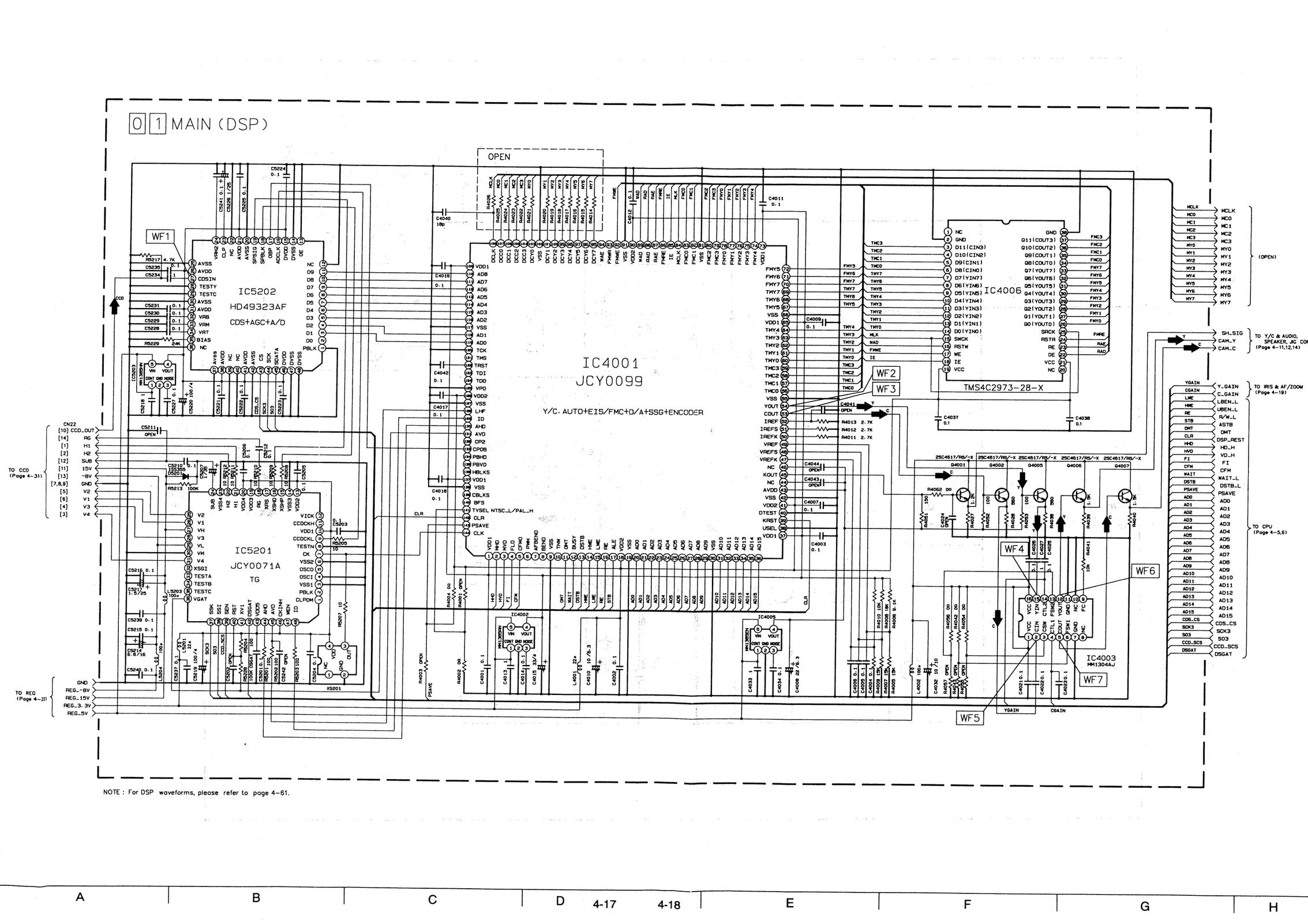
NOTES: 1.COMPARISON CHART OF MODELS & MARKS (●) 2.For Y/C & AUDIO waveforms, please refer to page 4-61.

REF. NO / MODELS	IC3103	R3125 R3126	C3107 C3108
DR-SM9815U	USED	USED	USED
DR-SM9815U	OPEN	OPEN	OPEN

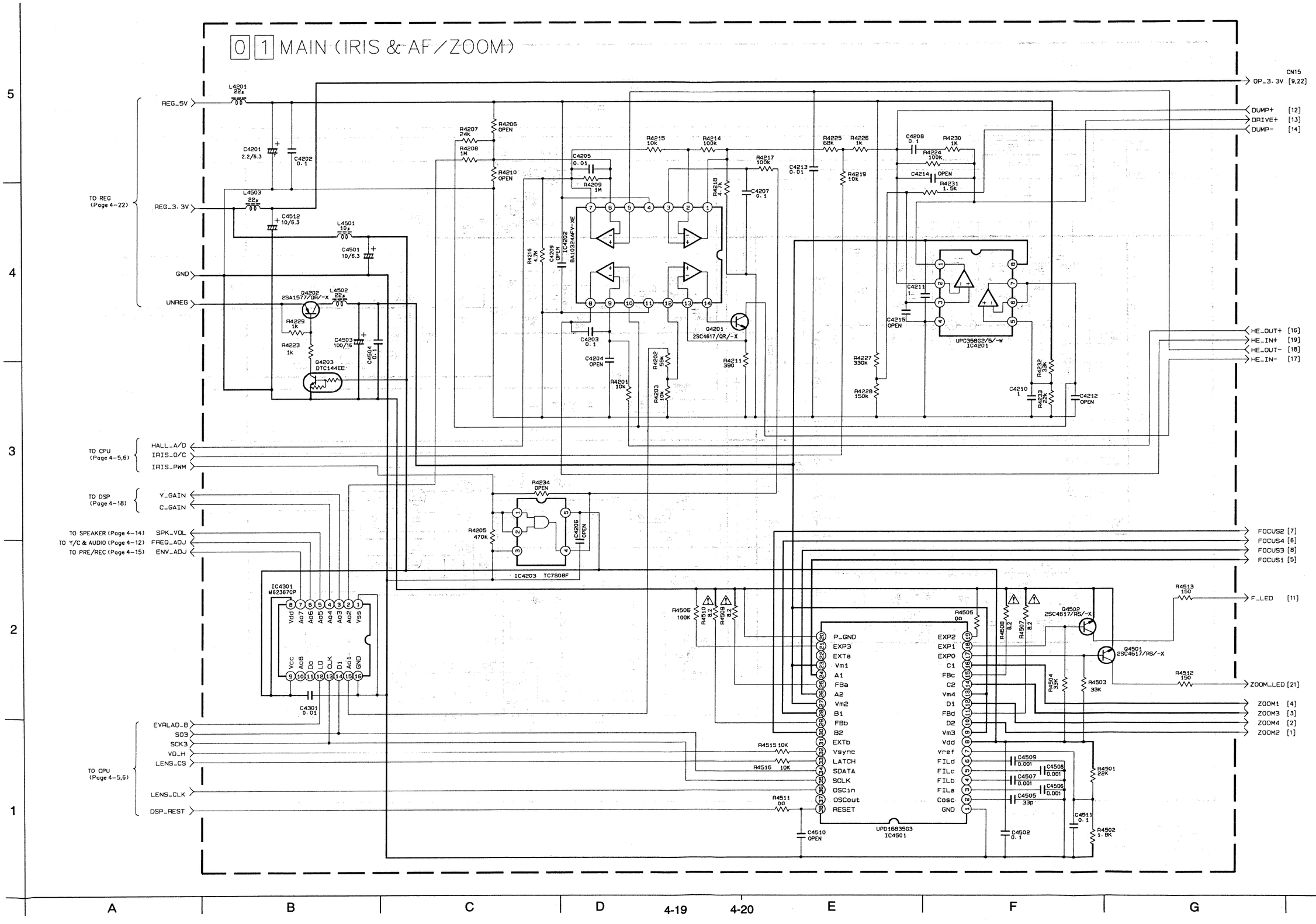
4.9 PRE/REC SCHEMATIC DIAGRAM



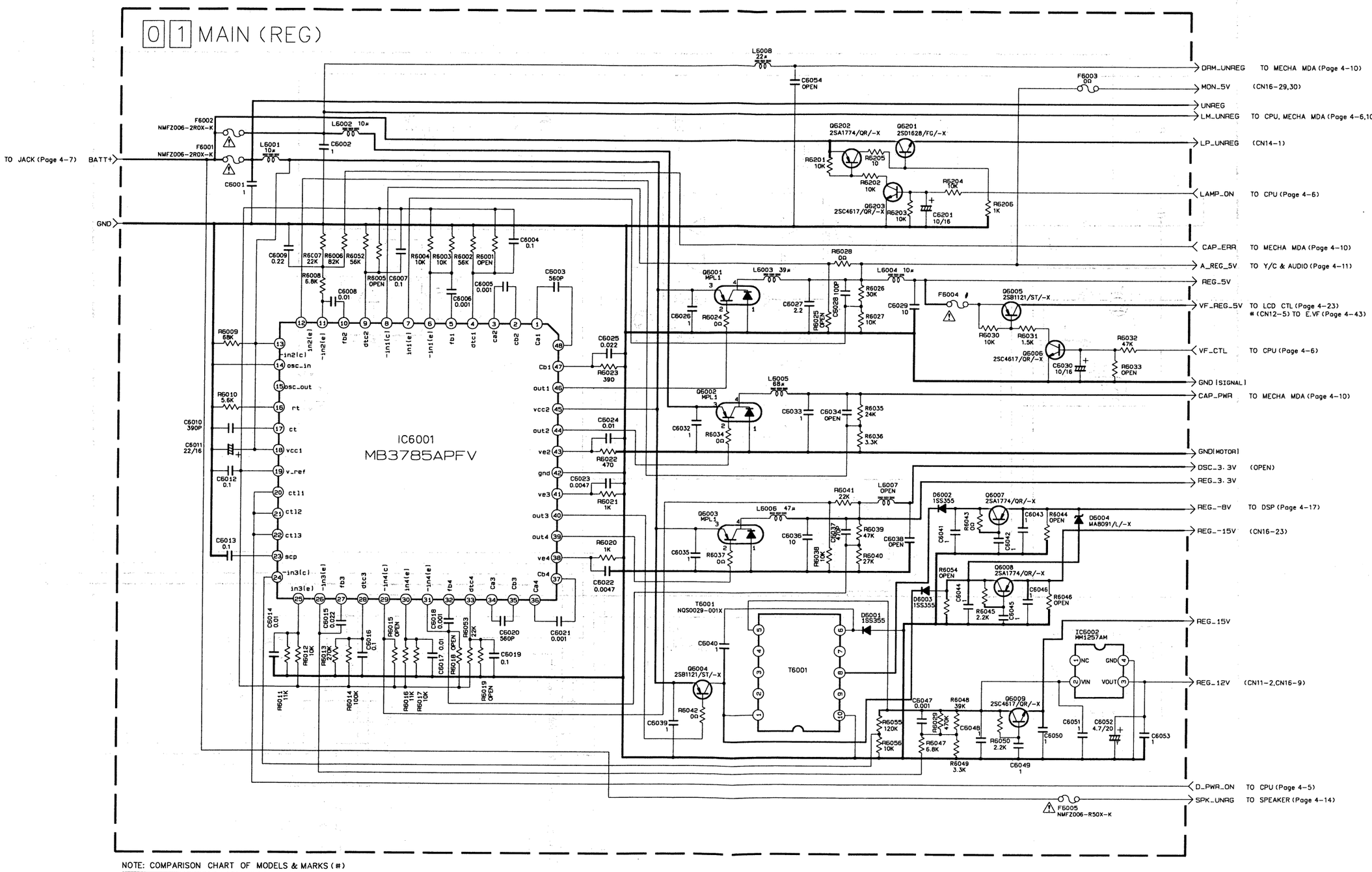
4.10 DSP SCHEMATIC DIAGRAM



4.11 IRIS & AF/ZOOM SCHEMATIC DIAGRAM



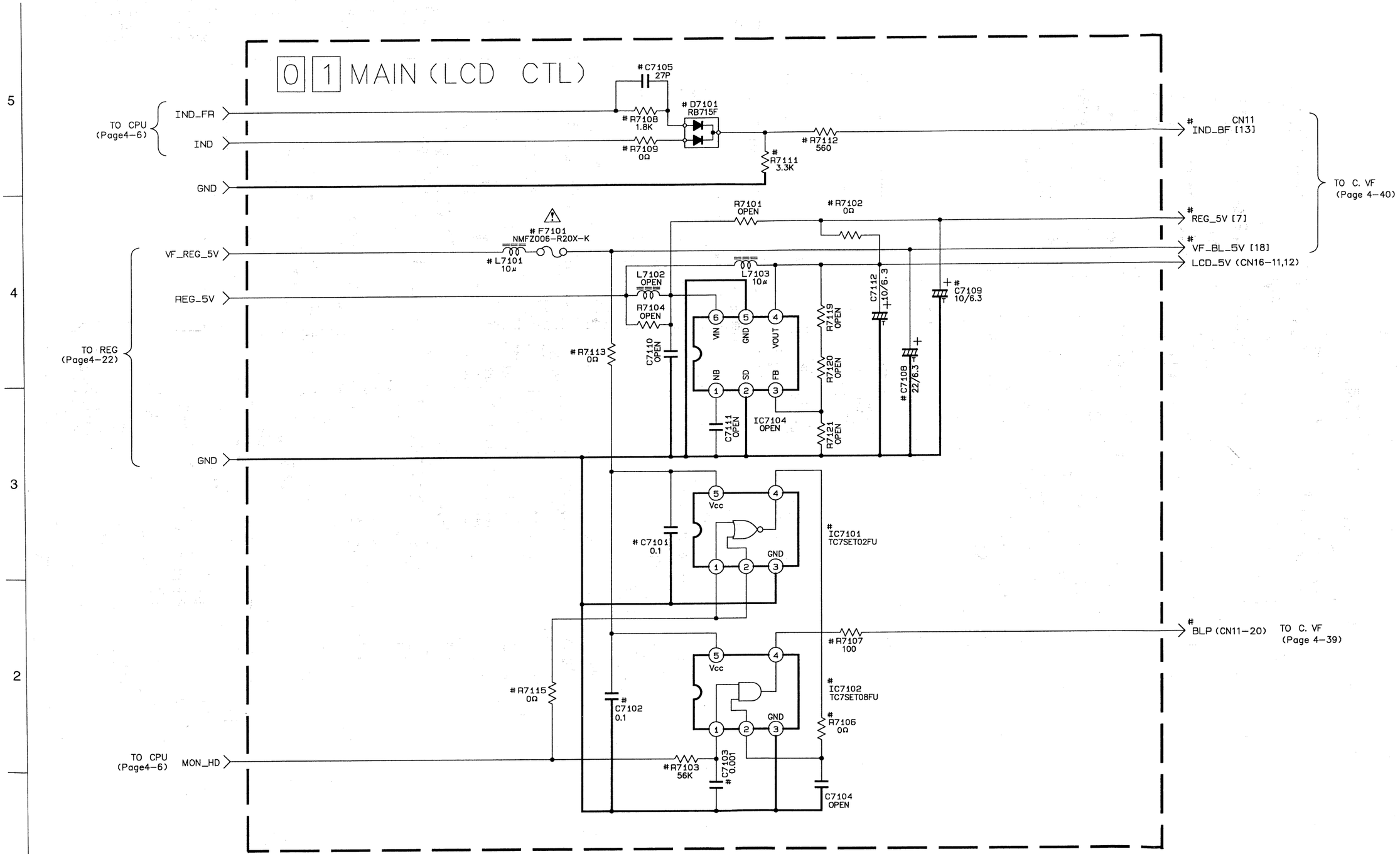
4.12 REGULATOR SCHEMATIC DIAGRAM



NOTE: COMPARISON CHART OF MODELS & MARKS (#)

REF. NO / MODELS	F6004	CN12
GR-SXM515U	NMFZ006-R50X-K	USED
GR-SXM915U	0Ω	OPEN

4.13 LCD CTL SCHEMATIC DIAGRAM



NOTE: COMPARISON CHART OF MODELS & MARKS (#)

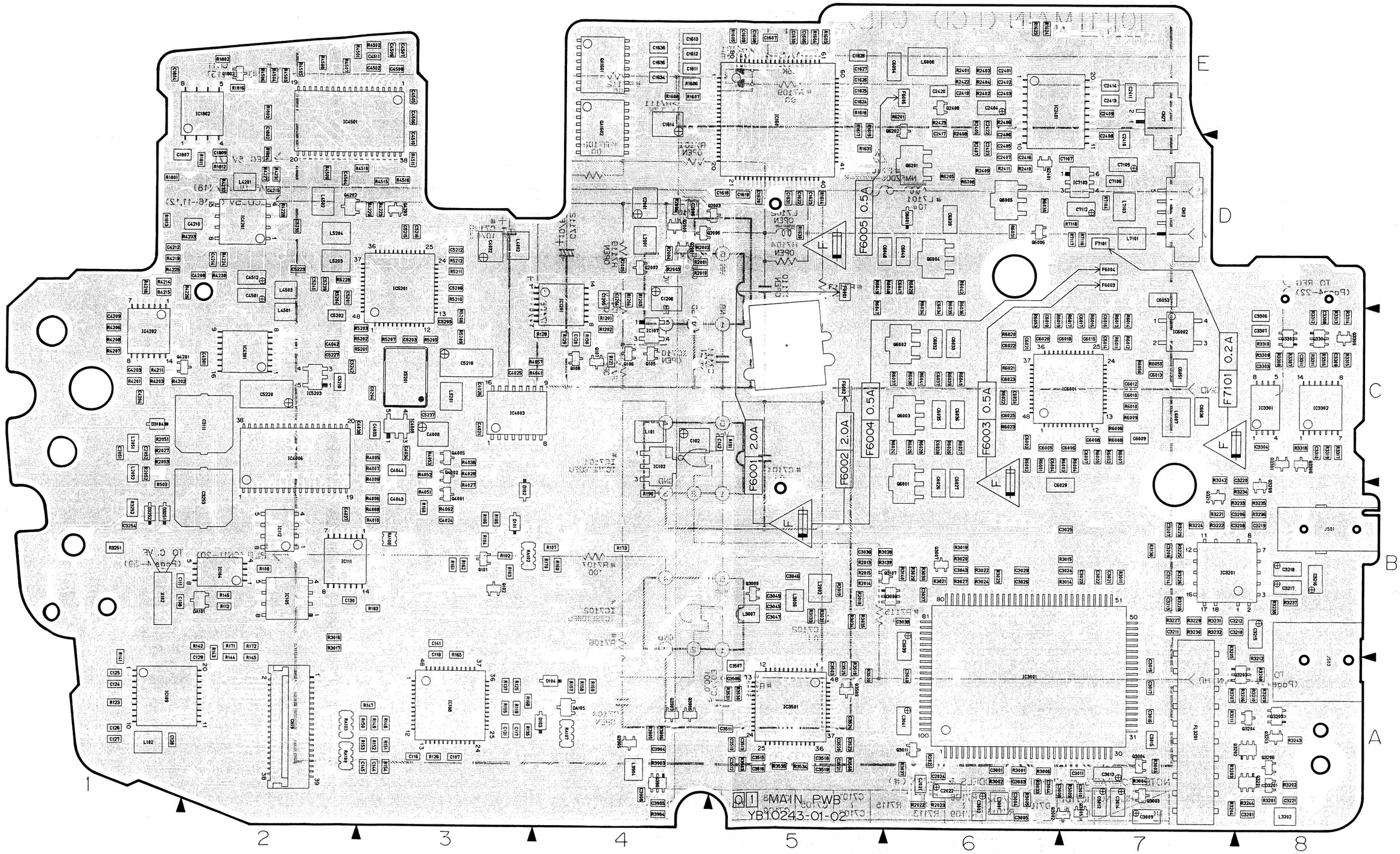
REF. NO / MODELS	IC7101 IC7102	D7101	R7102 R7103	R7106 ~ R7109	R7111 ~ R7113	R7115	C7101 ~ C7103	C7105	C7108 C7109	L7101	F7101	CN11
GR-SXM515U	OPEN	OPEN	OPEN	OPEN	OPEN	OPEN	OPEN	OPEN	OPEN	OPEN	OPEN	OPEN
GR-SXM915U	USED	USED	USED	USED	USED	USED	USED	USED	USED	USED	USED	USED

4.14 MAIN CIRCUIT BOARD

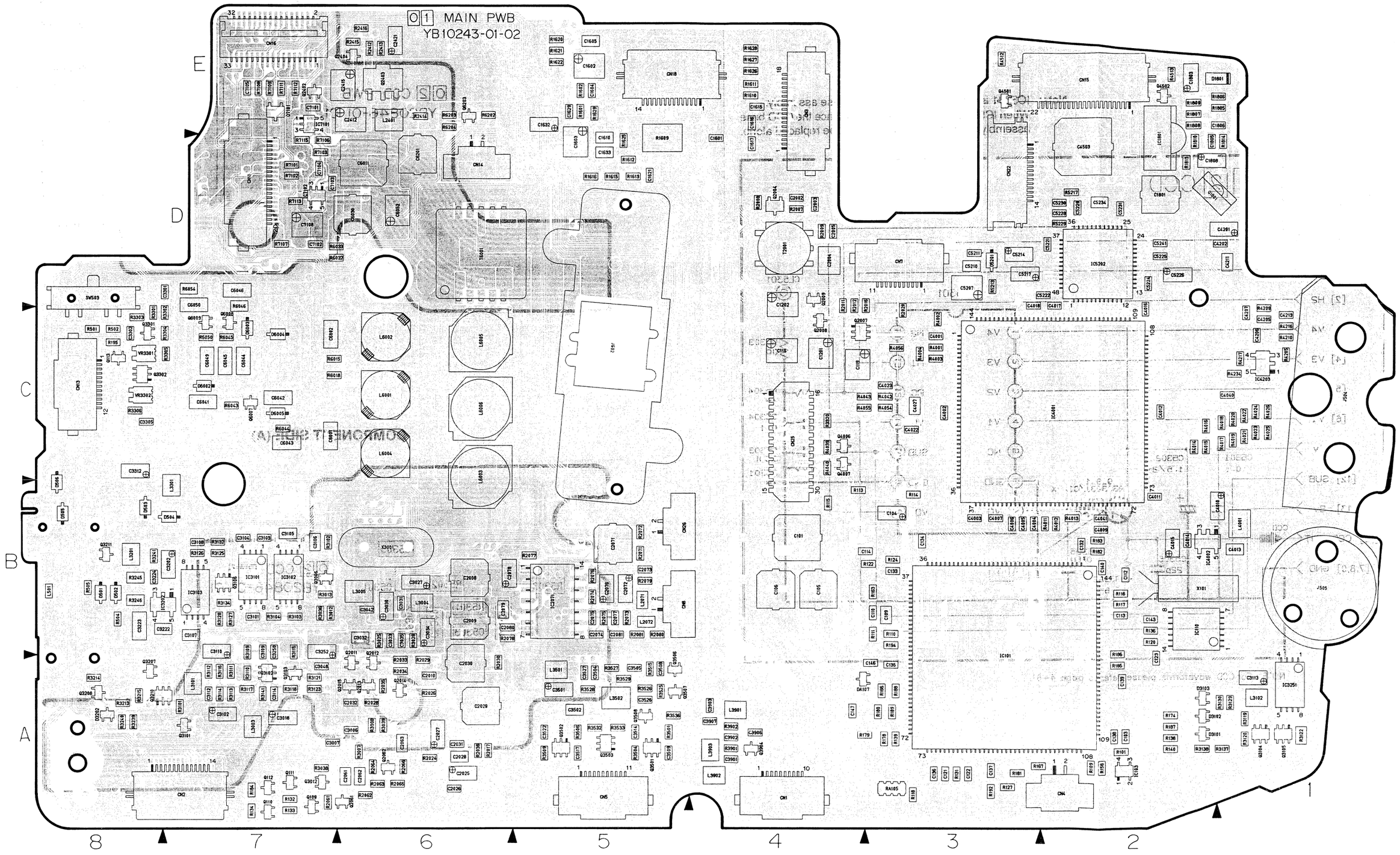
CAUTION:
FOR CONTINUED PROTECTION AGAINST FIRE HAZARD, REPLACE ONLY WITH SAME TYPE AND RATED FUSE.

ATTENTION:
POUR UNE PROTECTION PERMANENTE CONTRE LES RISQUE DÕINCENDE, REMPLACER LE FUSIBLE PAR UN AUTRE DE MEME TYPE ET DE MEME TENSION.

FOIL SIDE (B)

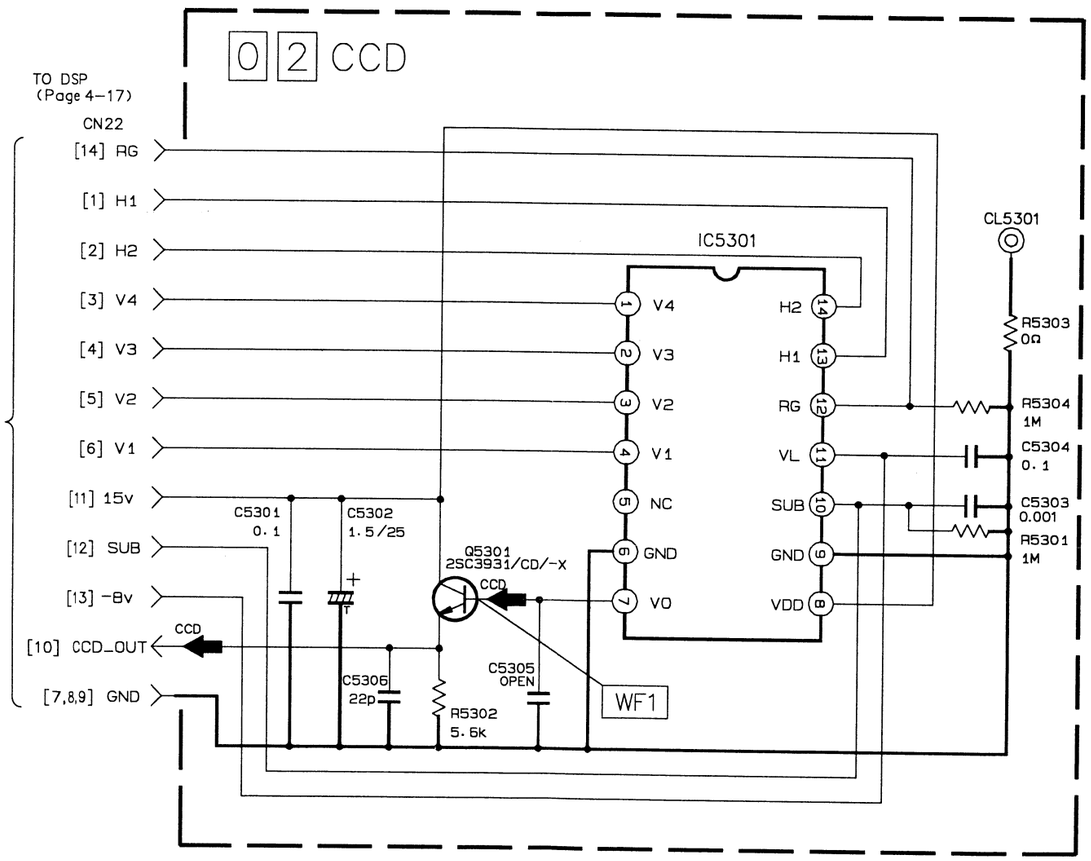


COMPONENT SIDE (A)



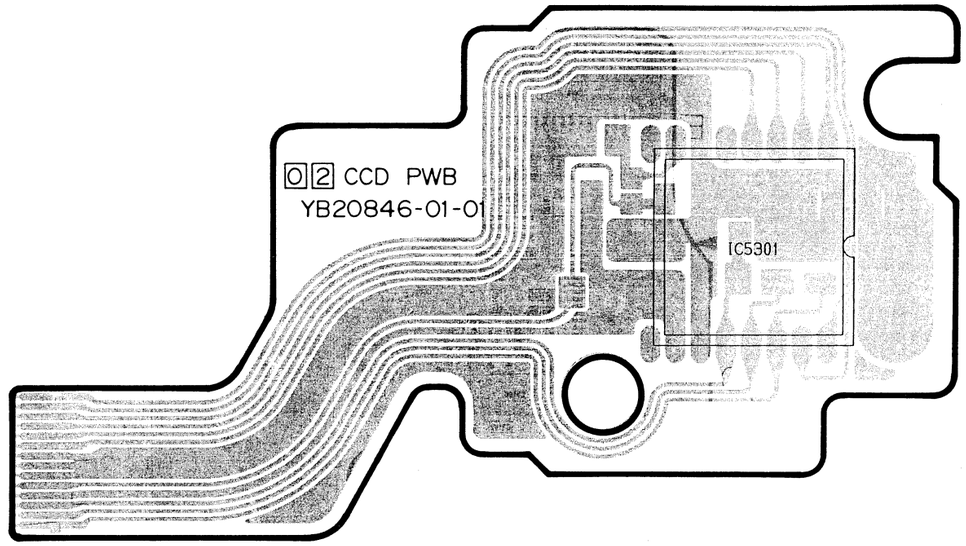
4.15 CCD SCHEMATIC DIAGRAM AND CCD CIRCUIT BOARD

Note: IC5301 is incorporated in the CCD base assembly. When IC5301 needs replacement, replace the CCD base assembly in whole because it cannot be replaced alone.

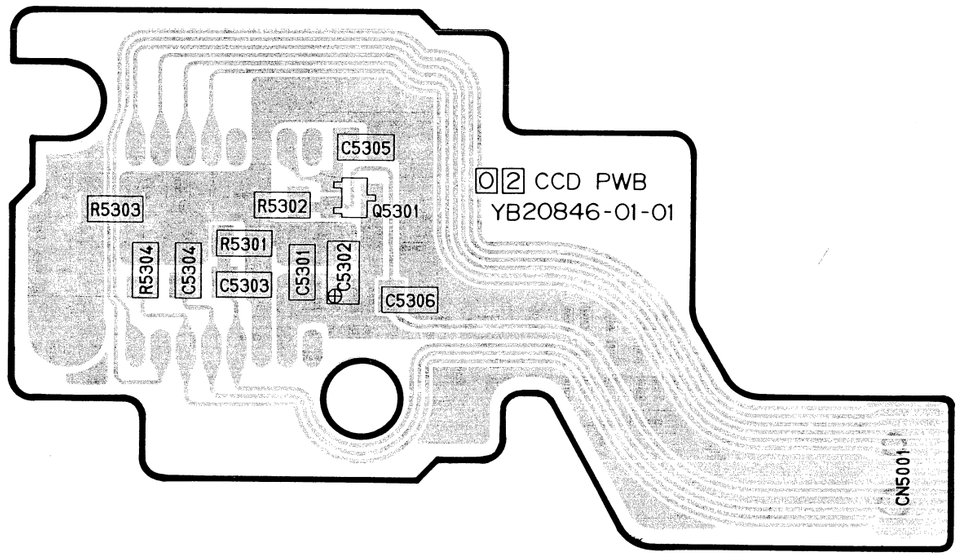


NOTE : For CCD waveforms, please refer to page 4-61.

FOIL SIDE (B)

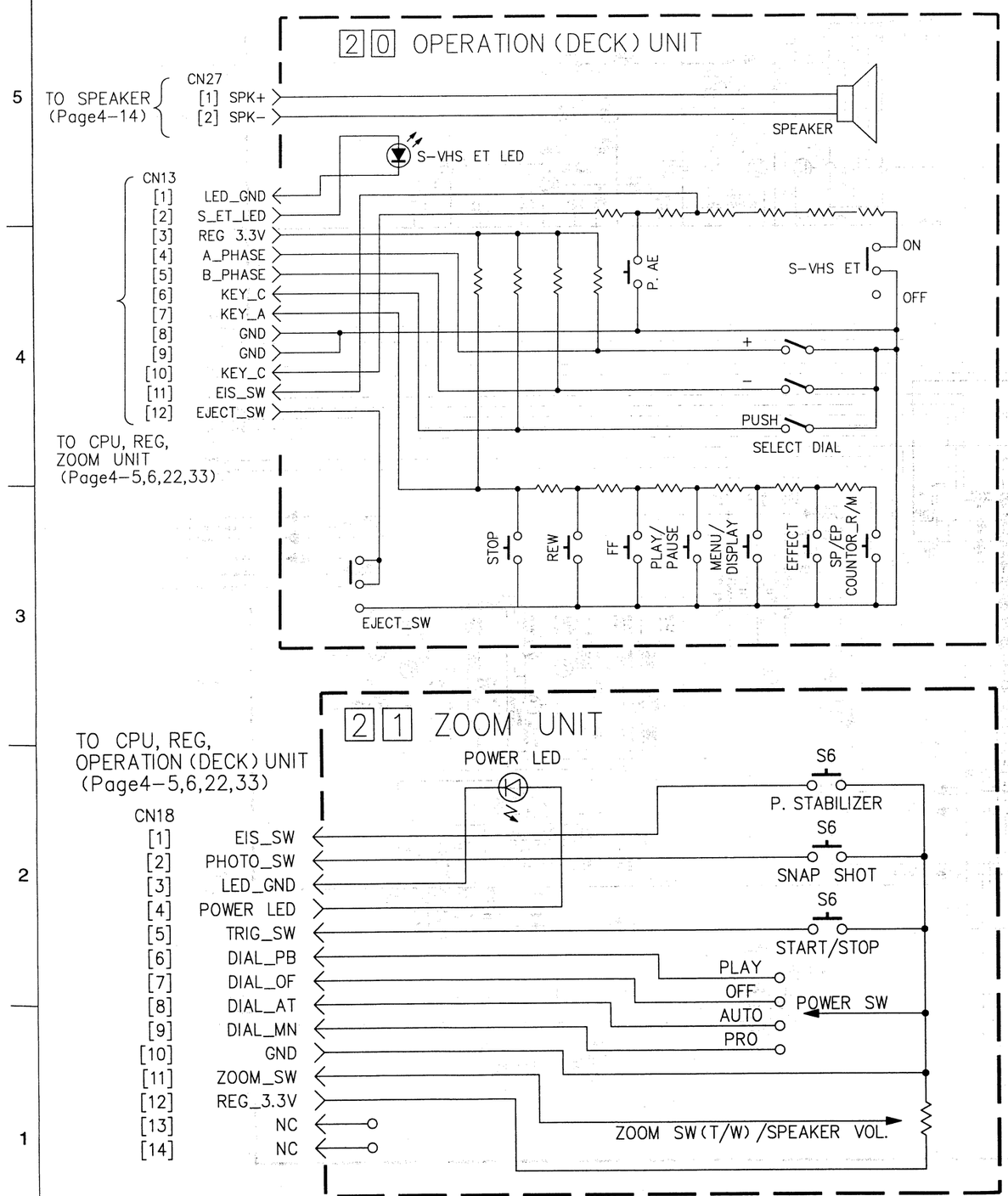


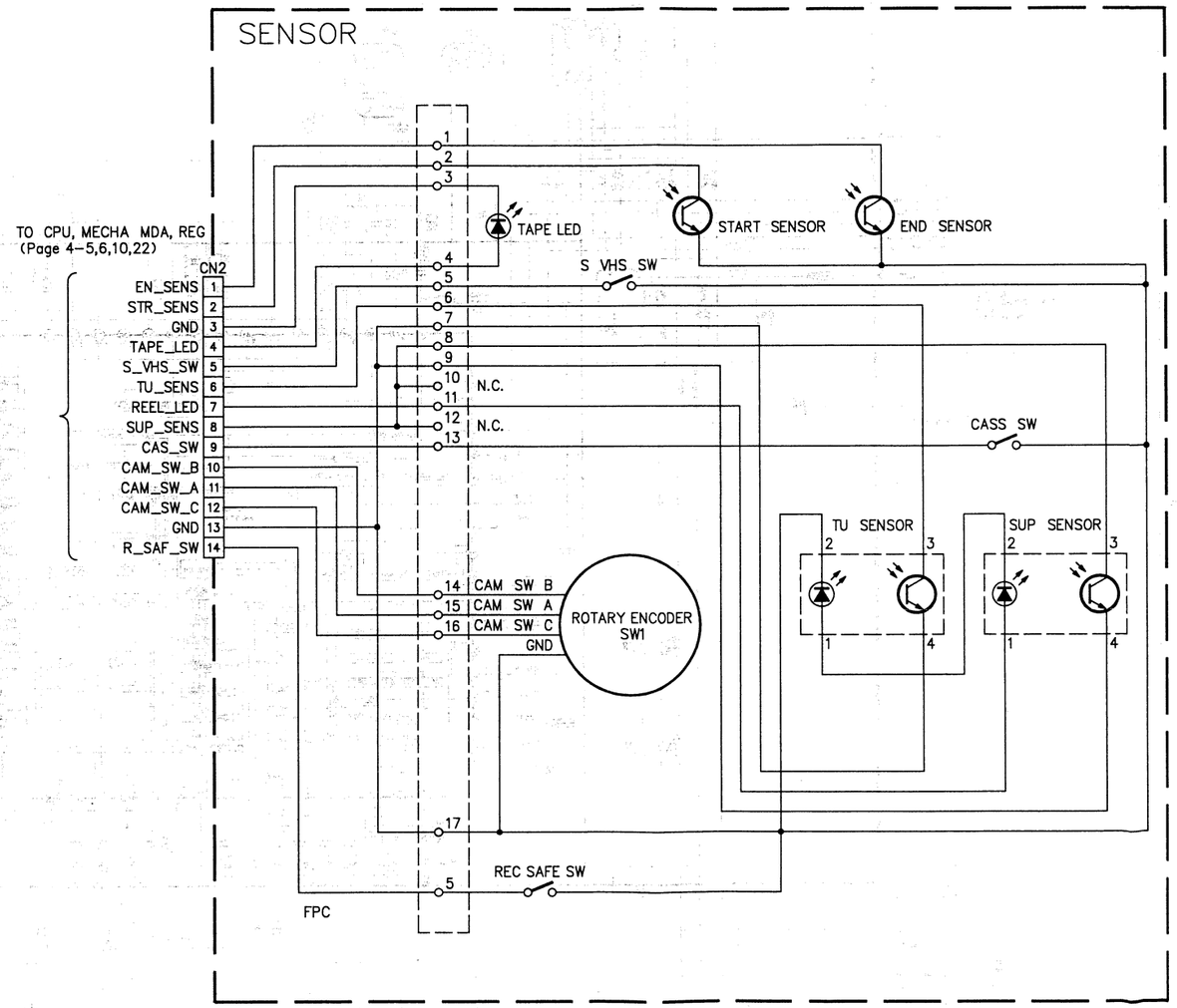
COMPONENT SIDE (A)



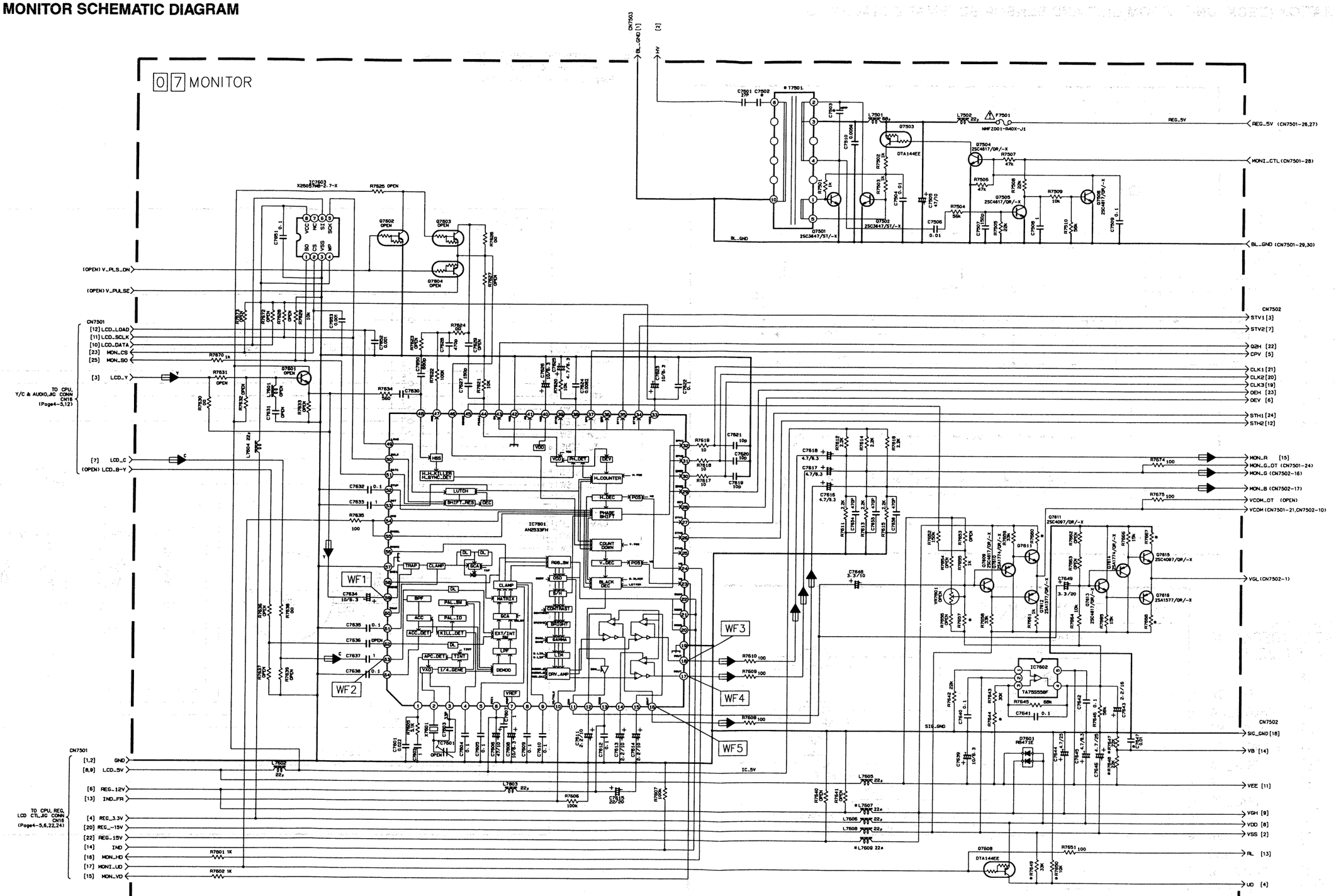
4.16 OPERATION (DECK) UNIT, ZOOM UNIT AND SENSOR SCHEMATIC DIAGRAMS

NOTE: The schematic diagrams are only for reference.
Avoid replacing individual parts.
Replace the entire unit only.





4.17 MONITOR SCHEMATIC DIAGRAM

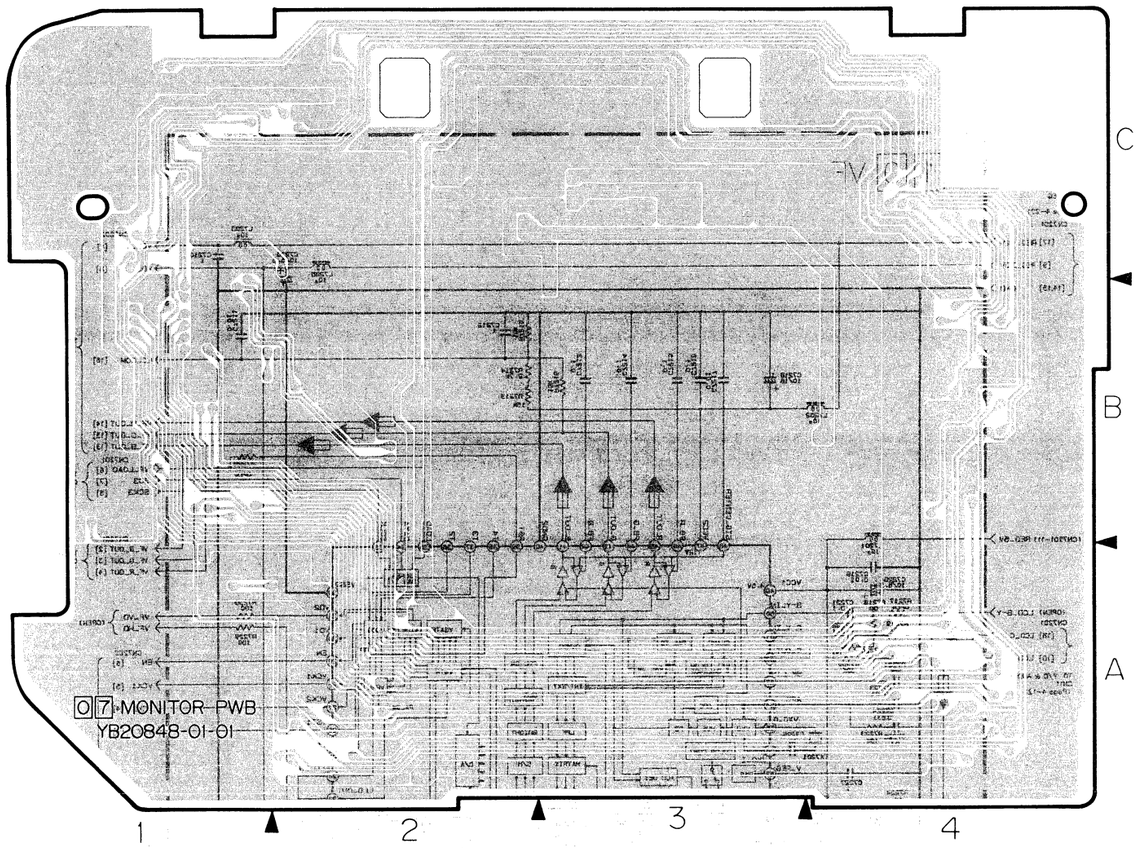


NOTES: 1.COMPARISON CHART OF MODELS & MARKS (#) 2.For MONITOR waveforms, please refer to page 4-61.

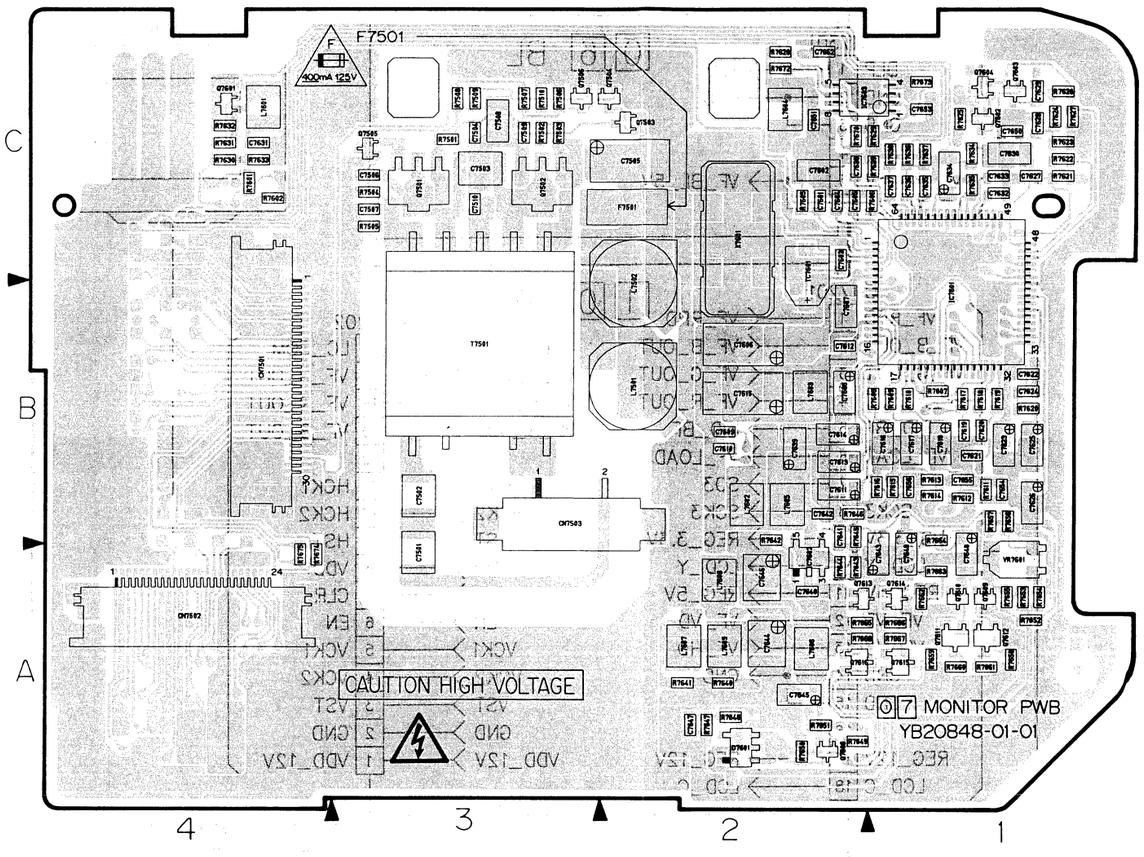
REF. NO / MODELS	R7644	R7647 ; R7649	R7650	R7657	R7660	R7667	R7668	C7502	C7503	C7647	L7607	L7609	T7501
GR-SXM515U	3K	OPEN	USED	3.3M	2.2K	2.2K	100	27P	0.039	OPEN	OPEN	USED	NQS0030-001
GR-SXM915U	9.1K	USED	OPEN	1.5M	1K	1K	220	39P	0.022	USED	USED	OPEN	NQS0030-002

4.18 MONITOR CIRCUIT BOARD

FOIL SIDE (B)



COMPONENT SIDE (A)



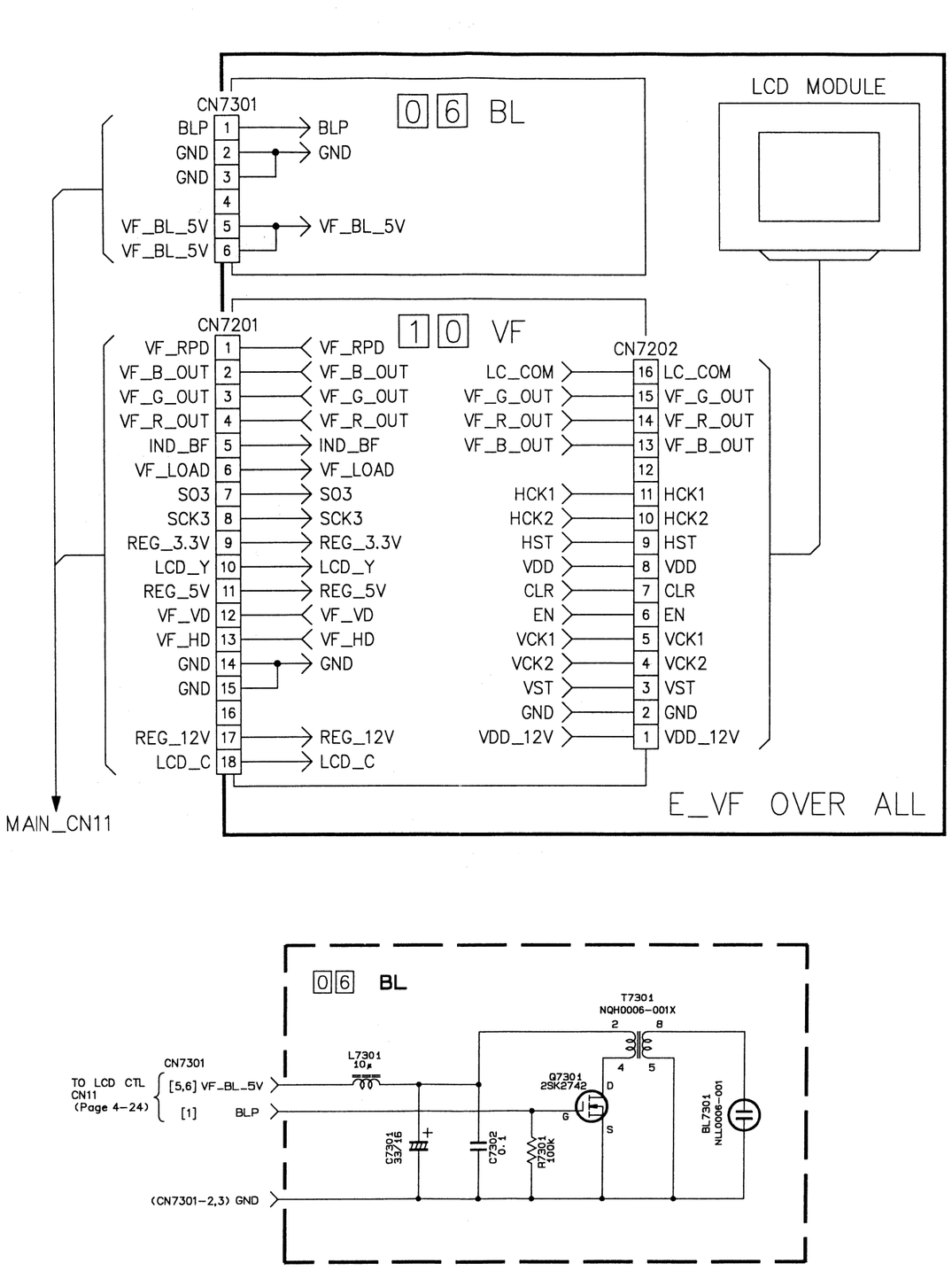
CAUTION:
FOR CONTINUED PROTECTION AGAINST FIRE HAZARD, REPLACE ONLY WITH SAME TYPE AND RATED FUSE.

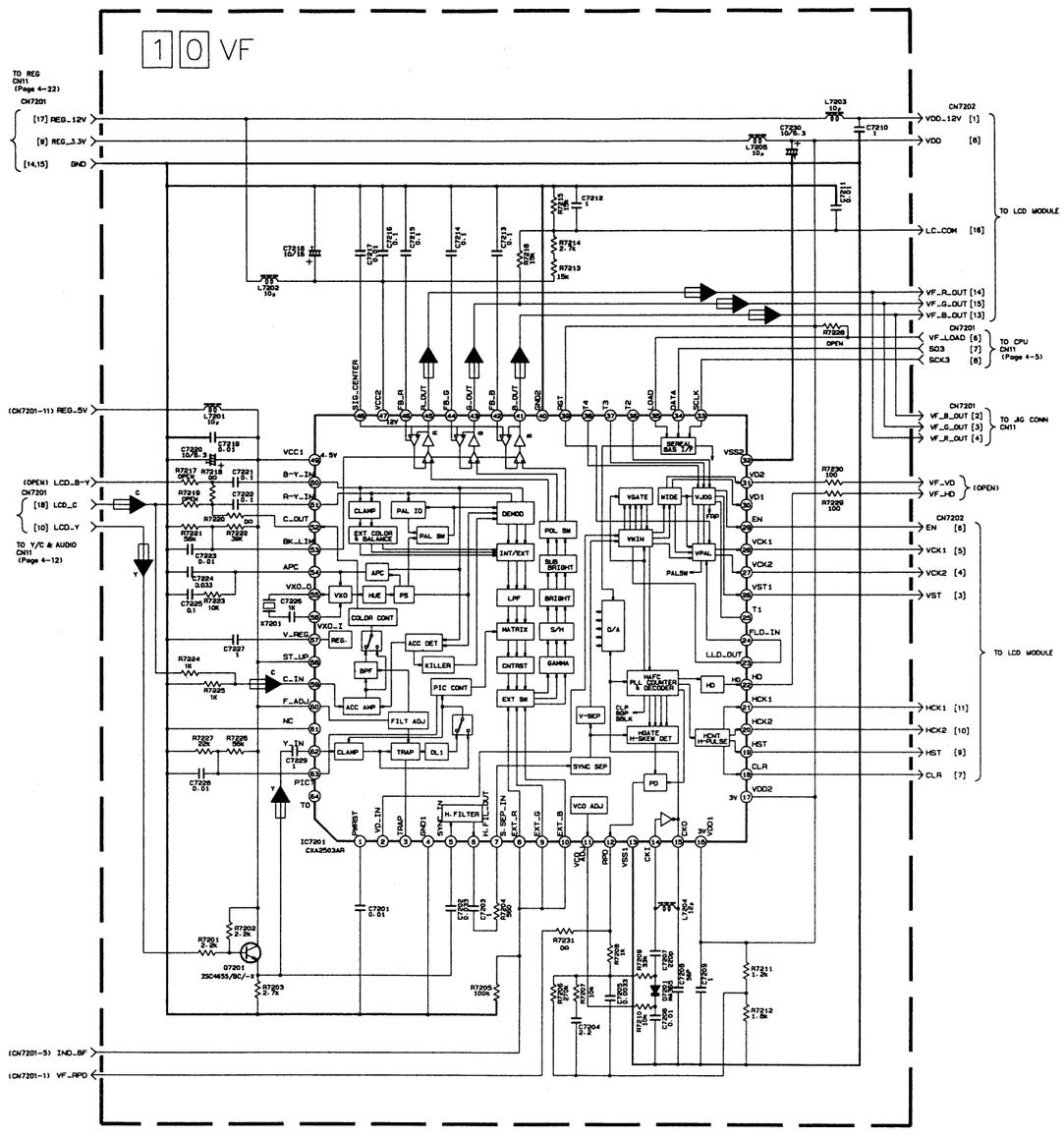
ATTENTION:
POUR UNE PROTECTION PERMANENTE CONTRE LES RISQUE DÖINCENDIE, REMPLACER LE FUSIBLE PAR UN AUTRE DE MEME TYPE ET DE MEMETENSION.

COMPONENT PARTS LOCATION GUIDE (MONITOR)

REF.No.	LOCATION		
CAPACITOR			
C7501	A	C	3A
C7502	A	C	3B
C7503	A	C	3C
C7504	A	C	3C
C7505	A	C	2C
C7506	A	C	3C
C7507	A	C	3C
C7508	A	C	3C
C7509	A	C	3C
C7510	A	C	3C
C7601	A	C	2C
C7602	A	C	2C
C7603	A	C	2C
C7604	A	C	2C
C7605	A	C	2C
C7606	A	C	2B
C7607	A	C	2B
C7608	A	C	2B
C7609	A	C	2B
C7610	A	C	2B
C7611	A	C	2B
C7612	A	C	2B
C7613	A	C	2B
C7614	A	C	2B
C7615	A	C	2B
C7616	A	C	1B
C7617	A	C	1B
C7618	A	C	1B
C7619	A	C	1B
C7620	A	C	1B
C7621	A	C	1B
C7622	A	C	1B
C7623	A	C	1B
C7624	A	C	1B
C7625	A	C	1B
C7626	A	C	1B
C7627	A	C	1C
C7628	A	C	1C
C7629	A	C	1C
C7630	A	C	1C
C7631	A	C	4C
C7632	A	C	1C
C7633	A	C	1C
C7634	A	C	1C
C7635	A	C	1C
C7636	A	C	1C
C7637	A	C	1C
C7638	A	C	2C
C7639	A	C	2B
C7640	A	C	2A
C7641	A	C	2B
C7642	A	C	2B
C7643	A	C	1A
C7644	A	C	2A
C7645	A	C	2A
C7646	A	C	2A
C7647	A	C	2A
C7648	A	C	1A
C7649	A	C	1A
C7650	A	C	1C
C7651	A	C	2C
C7652	A	C	2C
C7653	A	C	1C
C7654	A	C	1B
C7655	A	C	1B
C7656	A	C	1B
CONNECTOR			
CN7501	A	C	4B
CN7502	A	C	4A
CN7503	A	C	3B
DIODE			
D7601	A	C	2A
IC			
IC7601	A	C	1B
IC7602	A	C	2A
IC7603	A	C	2C
COIL			
L7501	A	C	2B
L7502	A	C	2B
L7601	A	C	4C
L7602	A	C	2B
L7603	A	C	2B
L7604	A	C	2C
L7605	A	C	2B
L7606	A	C	2A
L7607	A	C	2A
L7608	A	C	2A
L7609	A	C	2A
TRANSISTOR			
Q7501	A	C	3C
Q7502	A	C	3C
Q7503	A	C	2C
Q7504	A	C	2C
Q7505	A	C	3C
Q7506	A	C	3C
Q7601	A	C	4C
Q7602	A	C	1C
Q7603	A	C	1C
Q7604	A	C	1C
Q7608	A	C	2A
Q7609	A	C	1A
Q7610	A	C	1A
Q7611	A	C	1A
Q7612	A	C	1A
Q7613	A	C	2A
Q7614	A	C	1A
Q7615	A	C	1A
Q7616	A	C	2A
RESISTOR			
R7501	A	C	3C
R7502	A	C	3C
R7503	A	C	3C
R7504	A	C	3C
R7505	A	C	3C
R7506	A	C	3C
R7507	A	C	3C
R7508	A	C	3C
R7509	A	C	3C
R7510	A	C	3C
R7601	A	C	4C
R7602	A	C	4C
R7605	A	C	2C
R7606	A	C	1C
R7607	A	C	1B
R7608	A	C	1B
R7609	A	C	1B
R7610	A	C	1B
R7611	A	C	1B
R7612	A	C	1B
R7613	A	C	1B
R7614	A	C	1B
R7615	A	C	1B
R7616	A	C	1B
R7617	A	C	1B
R7618	A	C	1B
R7619	A	C	1B
R7620	A	C	1B
R7621	A	C	1C
R7622	A	C	1C
R7623	A	C	1C
R7624	A	C	1C
R7625	A	C	1C
R7626	A	C	1C
R7627	A	C	1C
R7628	A	C	2C
R7629	A	C	1C
R7630	A	C	4C
R7631	A	C	4C
R7632	A	C	4C
R7633	A	C	4C
R7634	A	C	1C
R7635	A	C	1C
R7636	A	C	1C
R7637	A	C	1C
R7638	A	C	1C
R7639	A	C	1C
R7640	A	C	2A
R7641	A	C	2A
R7642	A	C	2B
R7643	A	C	2A
R7644	A	C	2A
R7645	A	C	2B
R7646	A	C	2B
R7647	A	C	2A
R7648	A	C	2A
R7649	A	C	2A
R7650	A	C	2A
R7651	A	C	2A
R7652	A	C	1A
R7653	A	C	1A
R7654	A	C	1A
R7655	A	C	1A
R7656	A	C	1B
R7657	A	C	1B
R7658	A	C	1A
R7659	A	C	1A
R7660	A	C	1A
R7661	A	C	1A
R7662	A	C	1A
R7663	A	C	1A
R7664	A	C	1B
R7665	A	C	2A
R7666	A	C	1A
R7667	A	C	1A
R7668	A	C	2A
R7670	A	C	2C
R7672	A	C	2C
R7673	A	C	1C
R7674	A	C	4A
R7675	A	C	4A
VR7601	A	C	1A
OTHER			
F7501	A	C	2C
T7501	A	C	3B
TC7601	A	C	2C
X7601	A	C	2C

4.19 ELECTRONIC VIEWFINDER SCHEMATIC DIAGRAM (For SXM915U)

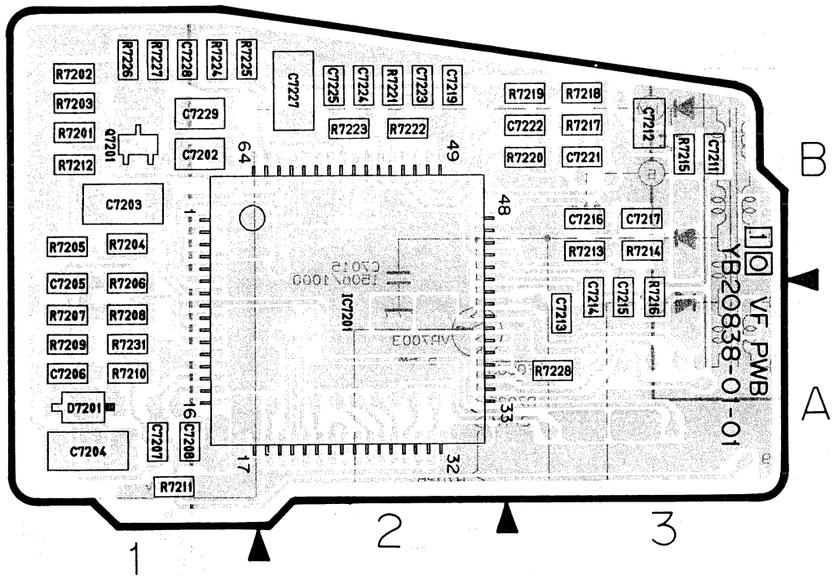




4.20 ELECTRONIC VIEWFINDER CIRCUIT BOARD (For SXM915U)

<VF>

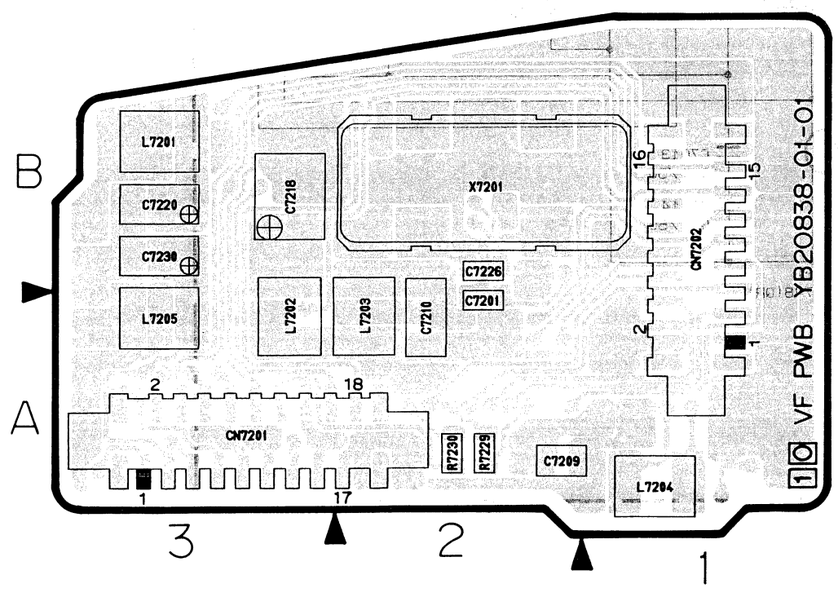
FOIL SIDE (B)



COMPONENT PARTS LOCATION GUIDE (VF)

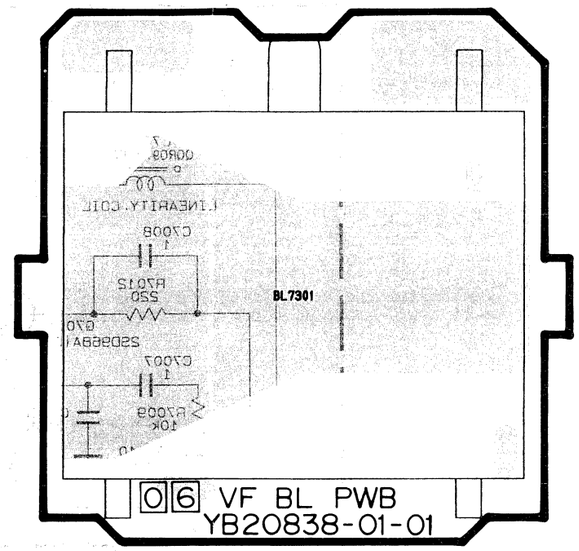
REF.No.	LOCATION			REF.No.	LOCATION		
CAPACITOR				TRANSISTOR			
C7201	A	C	2A	Q7201	B	C	1B
C7202	B	C	1B				
C7203	B	C	1B	RESISTOR			
C7204	B	C	1A				
C7205	B	C	1B	R7201	B	C	1B
C7206	B	C	1A	R7202	B	C	1B
C7207	B	C	1A	R7203	B	C	1B
C7208	B	C	1A	R7204	B	C	1B
C7209	A	C	2A	R7205	B	C	1B
C7210	A	C	2A	R7206	B	C	1B
C7211	B	C	3B	R7207	B	C	1A
C7212	B	C	3B	R7208	B	C	1A
C7213	B	C	3A	R7209	B	C	1A
C7214	B	C	3A	R7210	B	C	1A
C7215	B	C	3A	R7211	B	C	1A
C7216	B	C	3B	R7212	B	C	1B
C7217	B	C	3B	R7213	B	C	3B
C7218	A	C	3B	R7214	B	C	3B
C7219	B	C	2B	R7215	B	C	3B
C7220	A	C	3B	R7216	B	C	3A
C7221	B	C	3B	R7217	B	C	3B
C7222	B	C	3B	R7218	B	C	3B
C7223	B	C	2B	R7219	B	C	3B
C7224	B	C	2B	R7220	B	C	3B
C7225	B	C	2B	R7221	B	C	2B
C7226	A	C	2B	R7222	B	C	2B
C7227	B	C	2B	R7223	B	C	2B
C7228	B	C	1B	R7224	B	C	1B
C7229	B	C	1B	R7225	B	C	1B
C7230	A	C	3B	R7226	B	C	1B
CONNECTOR				R7227	B	C	1B
				R7228	B	C	3A
CN7201	A	C	3A	R7229	A	C	2A
CN7202	A	C	1A	R7230	A	C	2A
DIODE				R7231	B	C	1A
D7201	B	C	1A	OTHER			
IC				X7201	A	C	2B
IC7201	B	C	2A				
COIL							
L7201	A	C	3B				
L7202	A	C	3A				
L7203	A	C	2A				
L7204	A	C	1A				
L7205	A	C	3A				

COMPONENT SIDE (A)

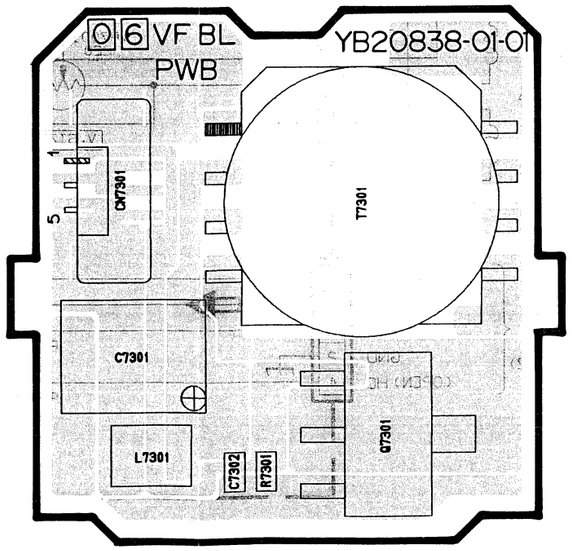


<BL>

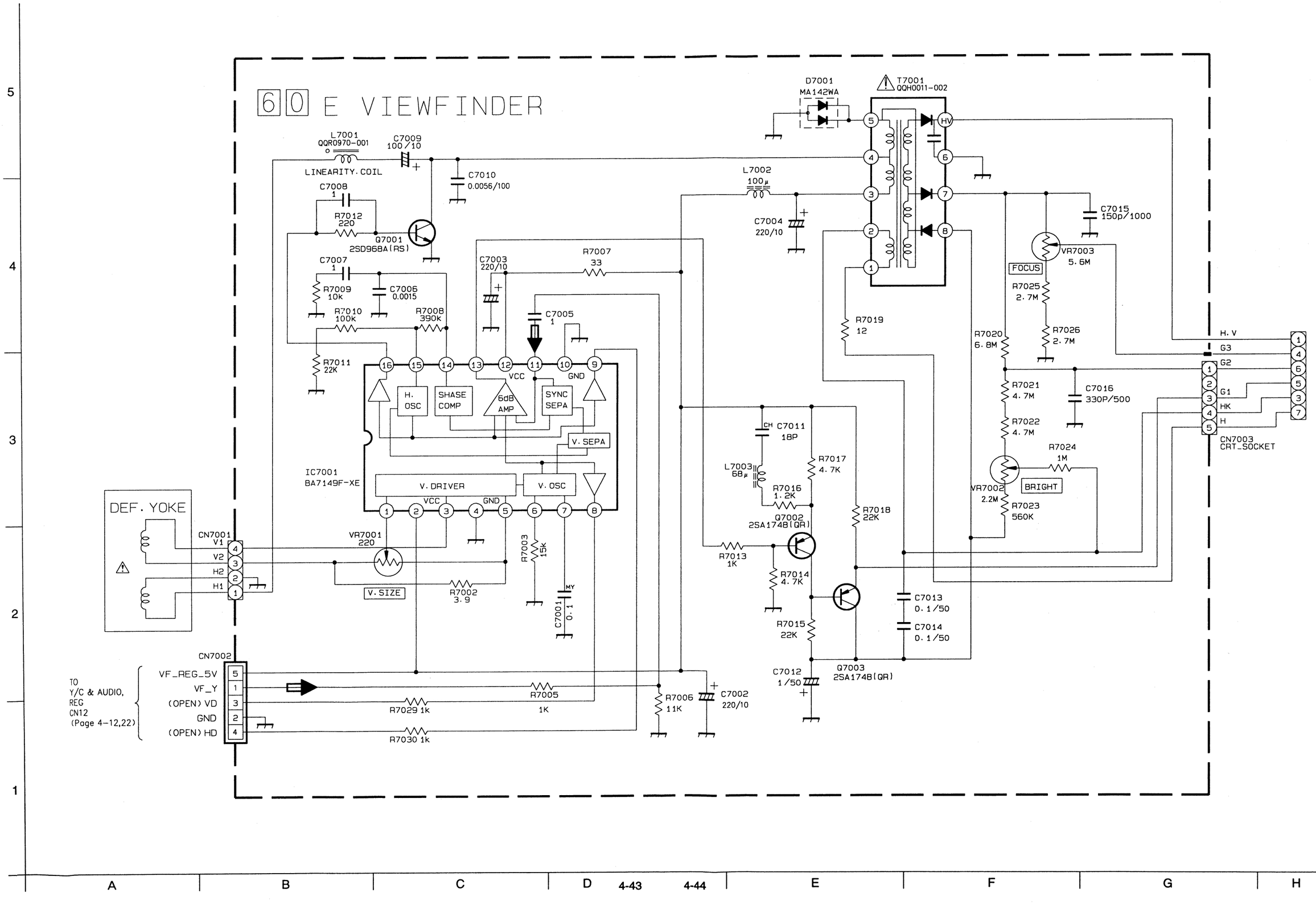
FOIL SIDE (B)



COMPONENT SIDE (A)

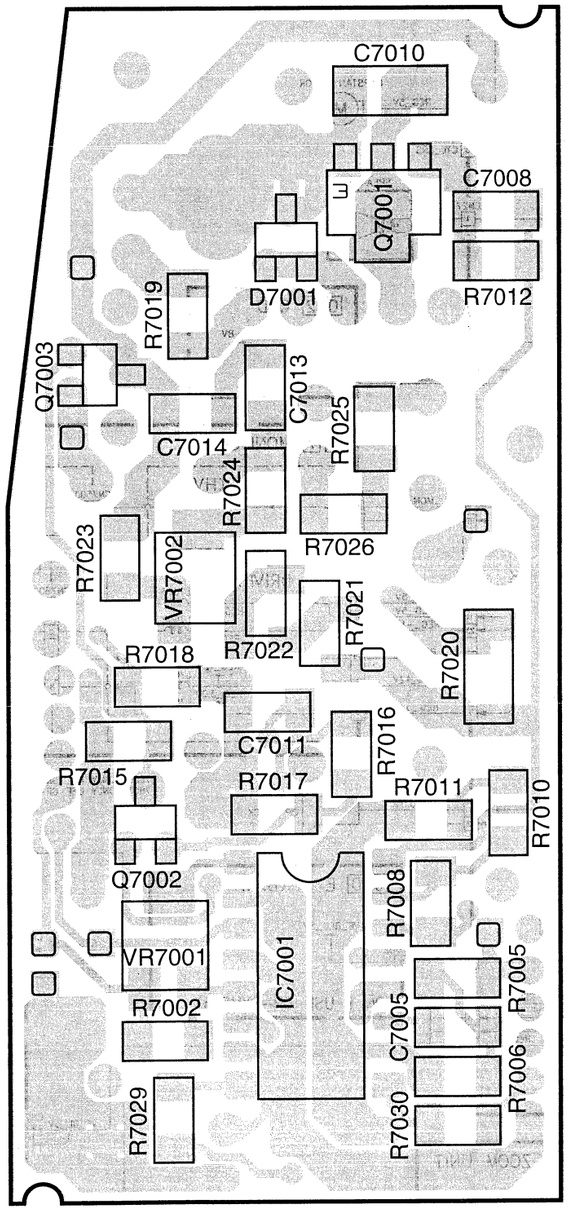


4.21 ELECTRONIC VIEWFINDER SCHEMATIC DIAGRAM (For SXM515U)

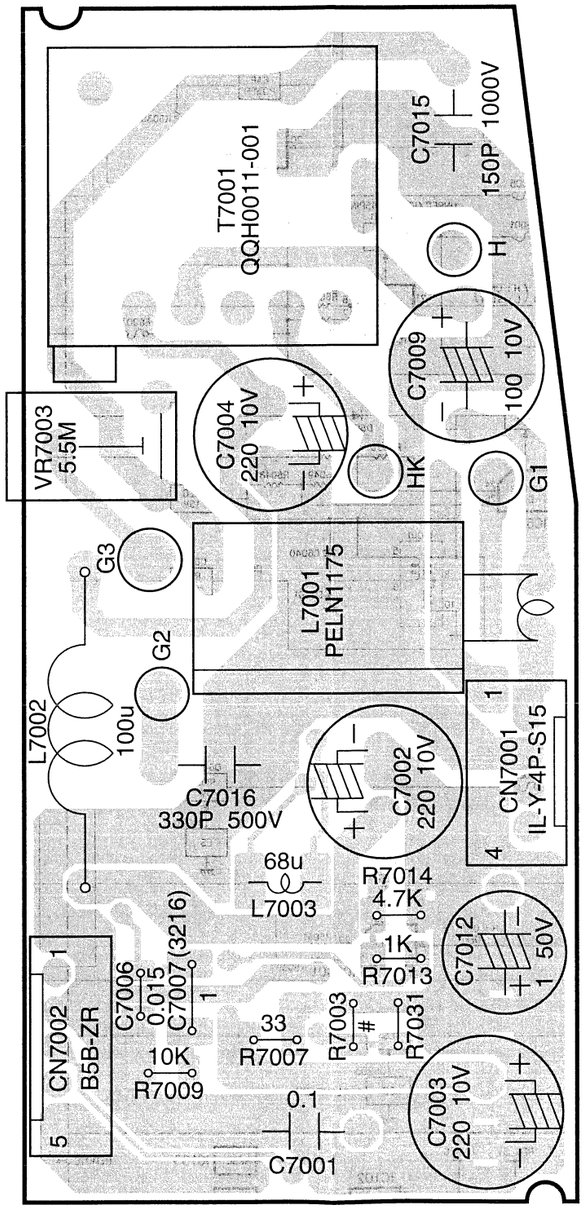


4.22 ELECTRONIC VIEWFINDER CIRCUIT BOARD (For SXM515U)

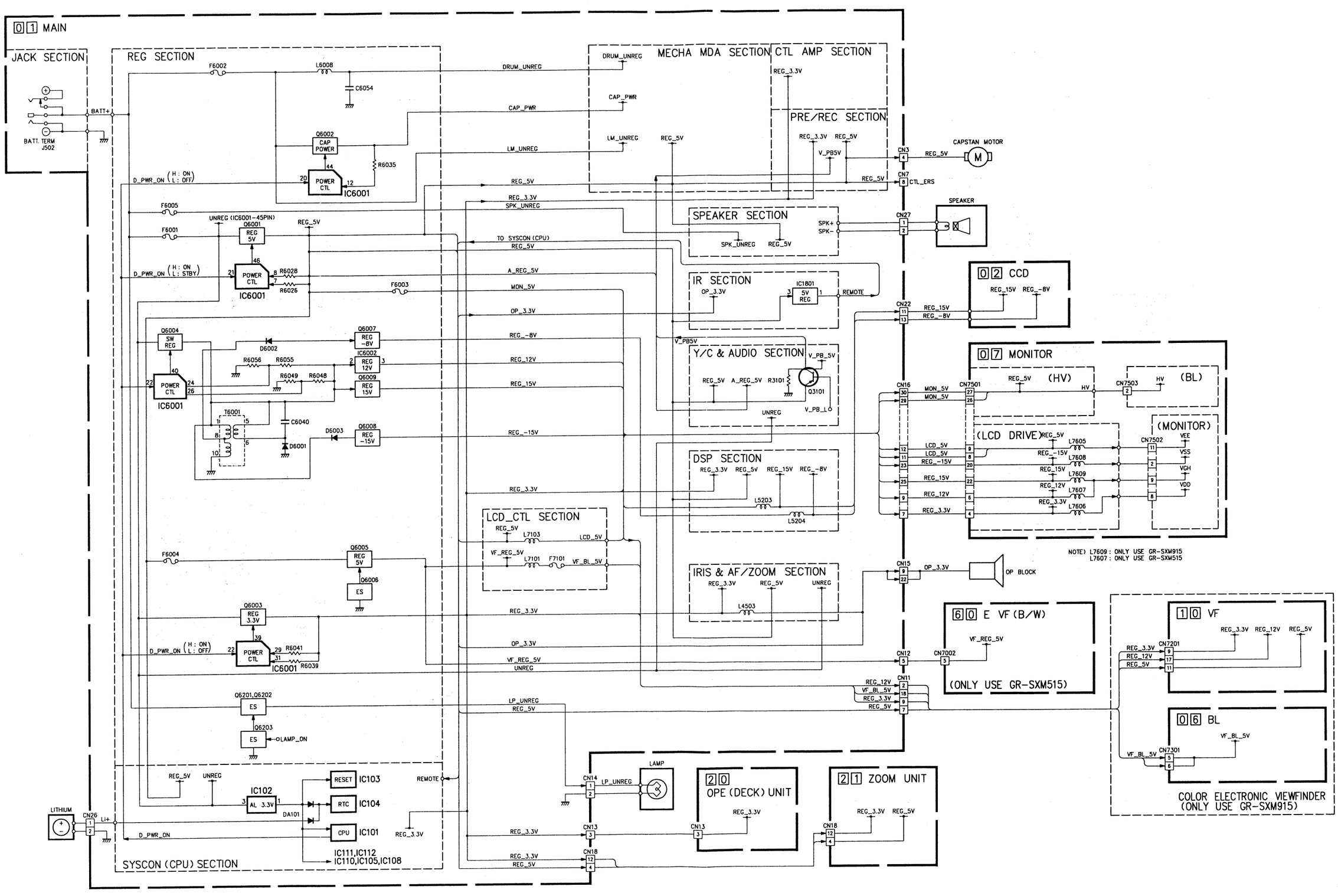
FOIL SIDE (B)



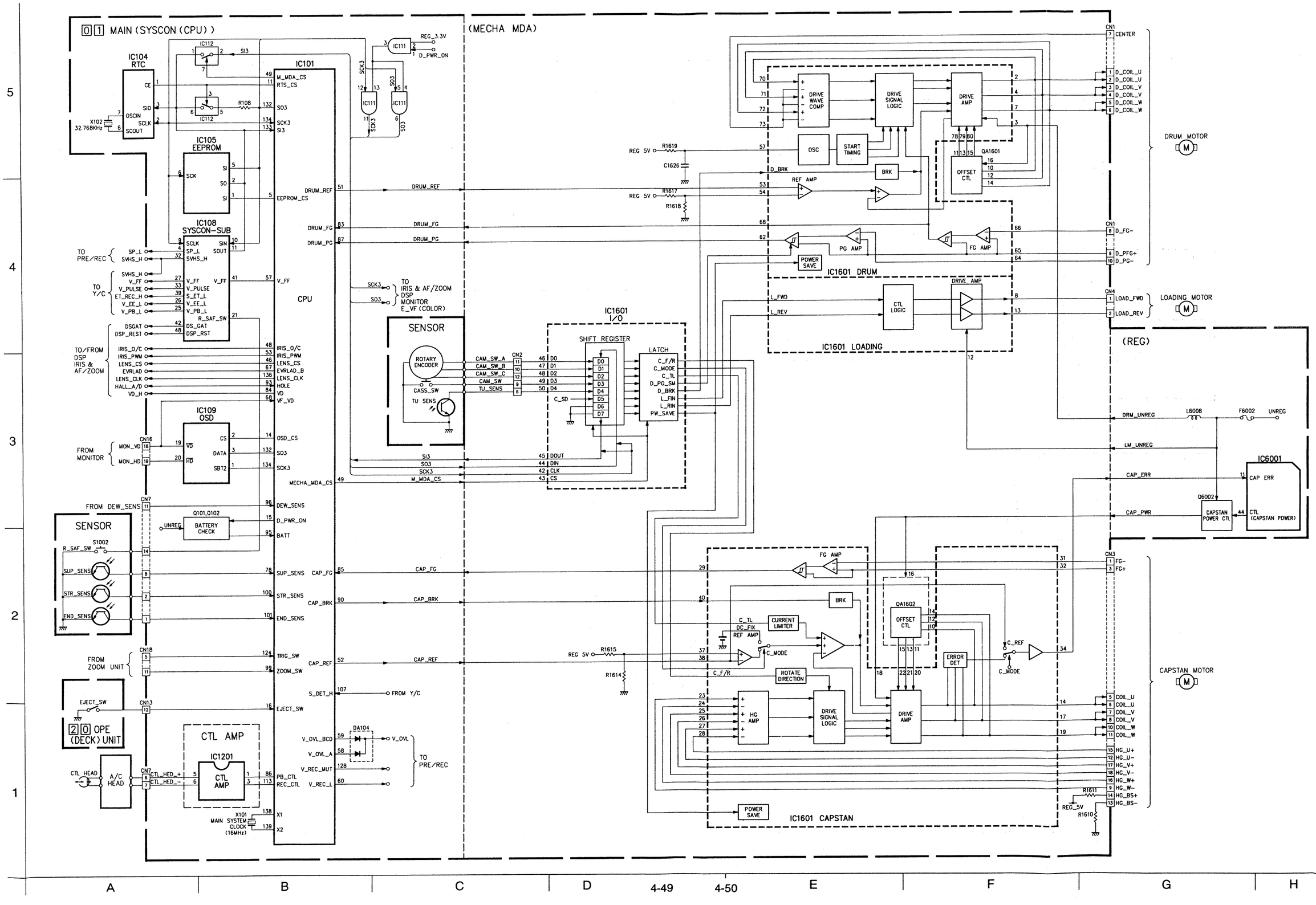
COMPONENT SIDE (A)



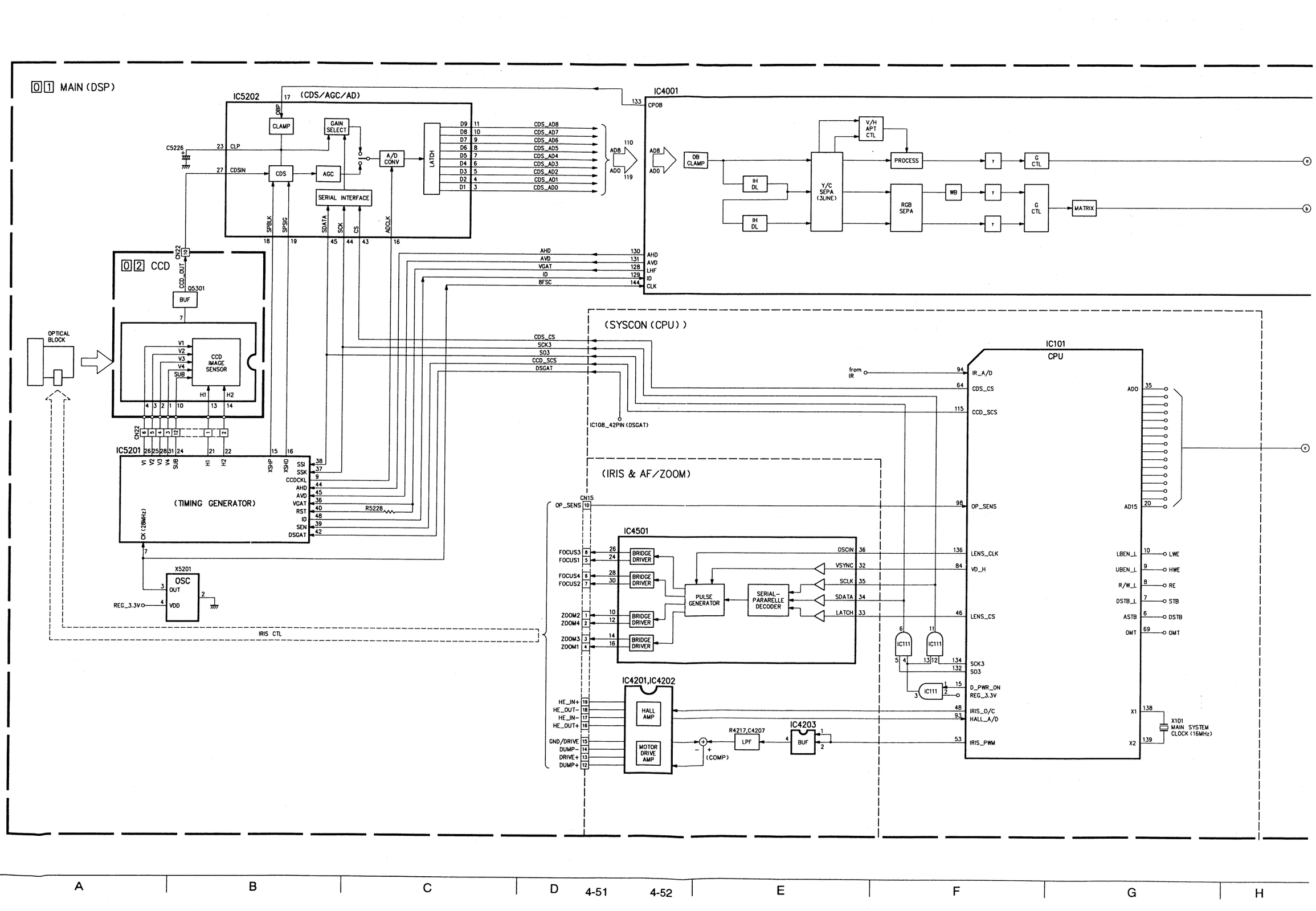
4.23 POWER SYSTEM BLOCK DIAGRAM



4.24 CPU/MDA BLOCK DIAGRAM



4.25 CAMERA BLOCK DIAGRAM



4-51 4-52

(DSP)

IC4001

FIELD MEMORY CONTROL INTERFACE

D/A CONV — Y
D/A CONV — B-Y — BUF — CLAMP — MOD
D/A CONV — R-Y — BUF — CLAMP — MOD
LPF
SUB CARRIER MODULE
LIM — BLK

54 YOUT — Q4005 BUF — 15 YIN — CLAMP — VCA — LPF — 12 — Q4006 BUF — CAM_Y
53 COUT — Q4002 BUF — 2 CIN — VCA — BPF — 5 — Q4007 BUF — CAM_C
TO Y/C

IC4003
Y_GAIN_CTL (IC4301_3PIN) — 14
REG_5V — 3
C_GAIN_CTL (IC4301_4PIN) — 4

C Y C Y

TMC0 TMC3 TMY0 TMY7 FWE FWD FMCK FMC0 FMC3 FNY0 FNY7 FNRE FRAE FRAD
56 59 60 69 85 92 89 84 83 79 78 70 86 87 88

ADD — 20 AD0 … AD15 — 36
LWE — 15 LWE
HWE — 14 HWE
RE — 16 RE
STB — 17 ALE
DSTB — 13 DSTB
OMT — 11 OMT
INTERFACE

FROM SYSCON (CPU) DSP_RST (IC108_48PIN) — 142 CLR

6 3 14 7 18 17 16 15 34 37 26 33 25 24 23 22

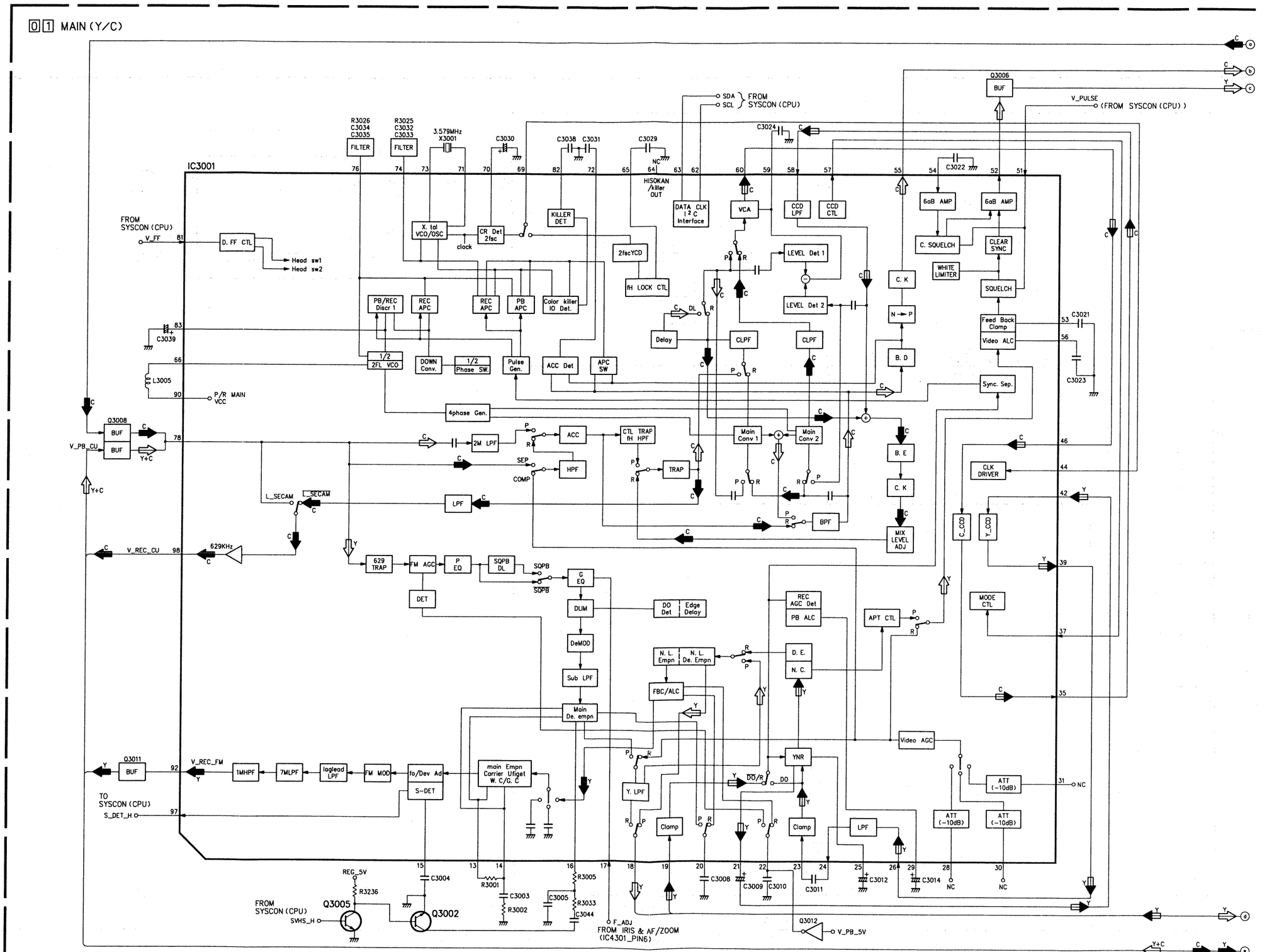
IC4006

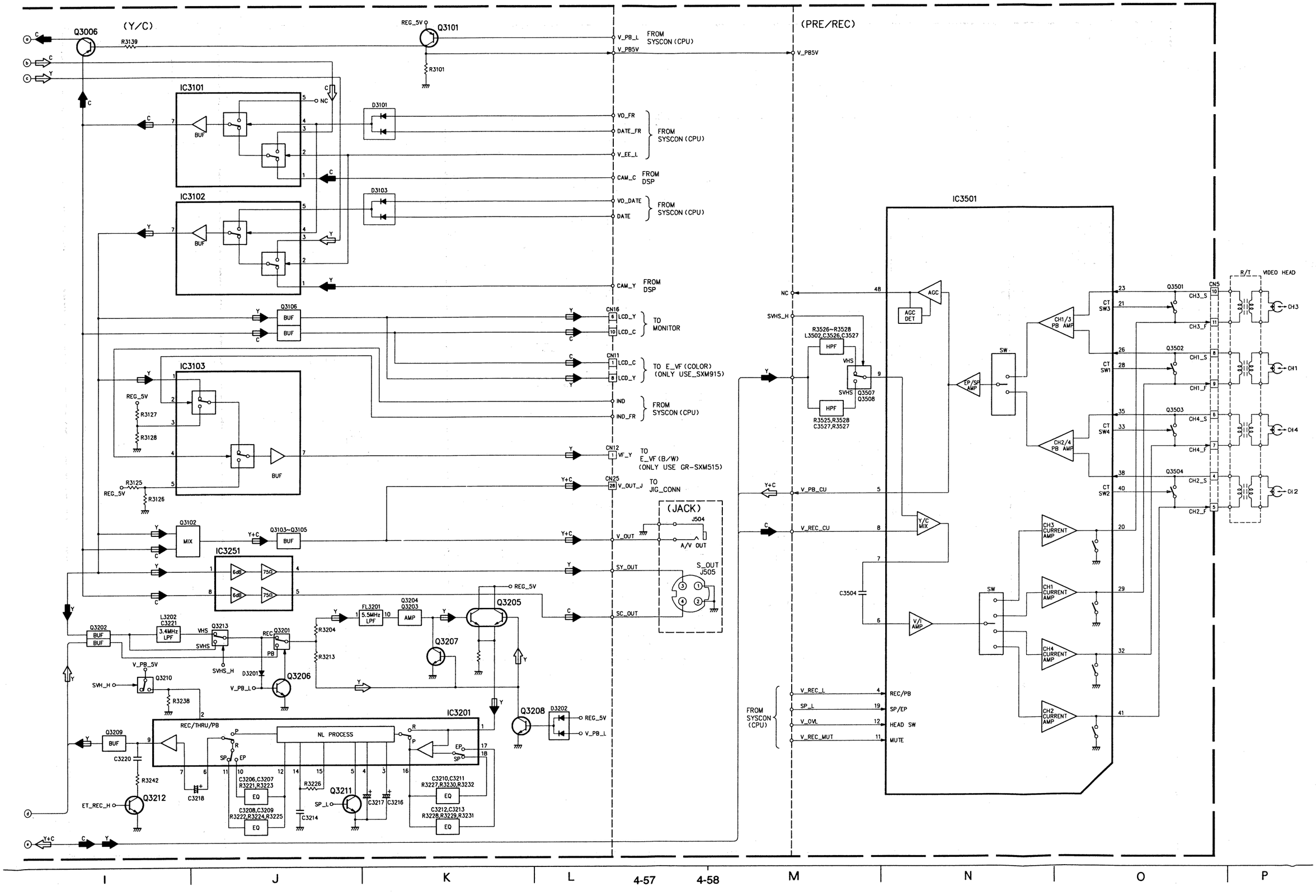
D8 (CIN0) D11 (CIN3) D0 (YIN0) D7 (YIN7) IE WE RSTW SWCK Q8 (COUT0) Q11 (COUT3) Q0 (YOUT0) Q7 (YOUT7) SRCK RSTR RE DE

C Y C Y

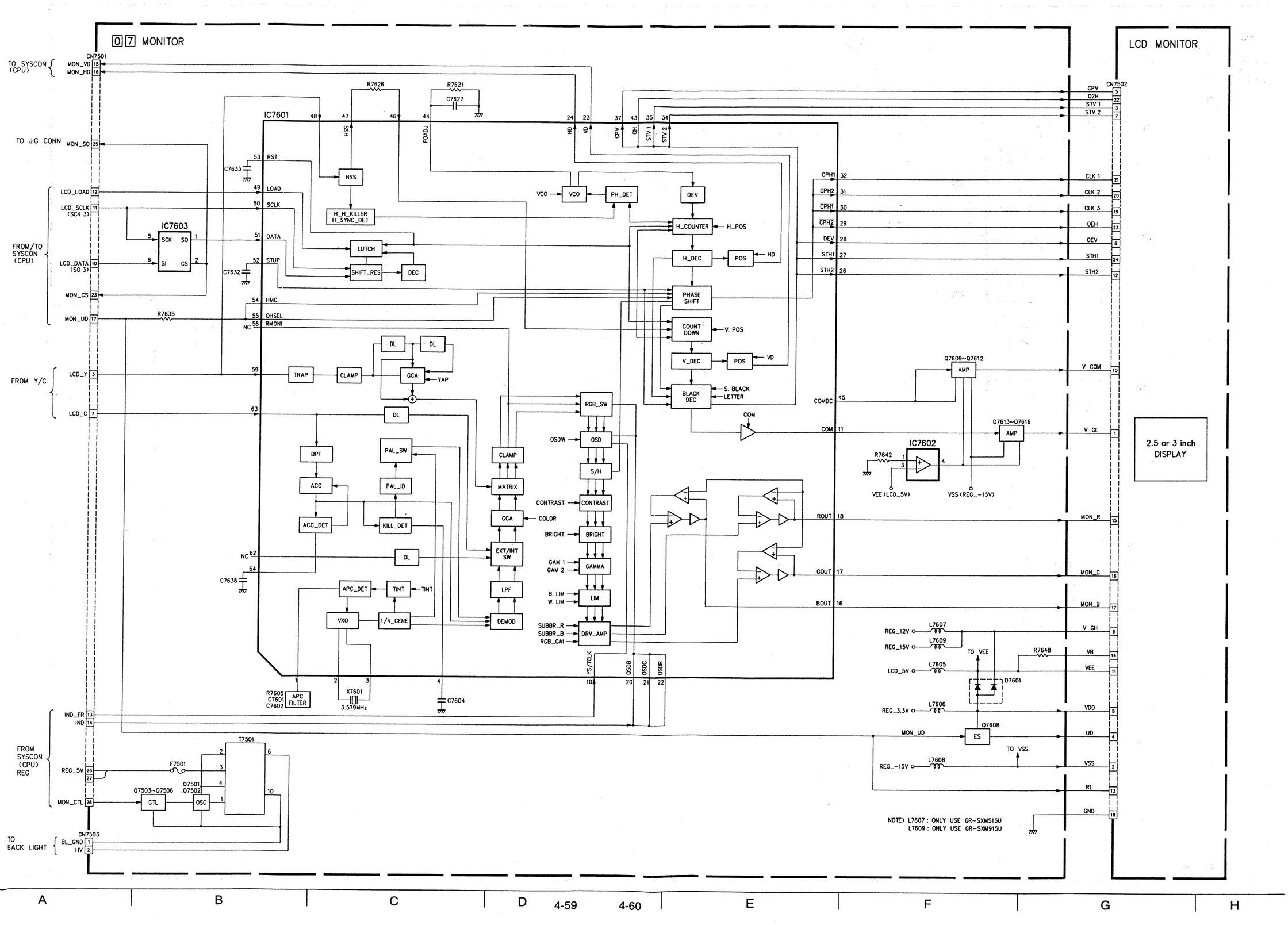
SIGNAL CONV
SIGNAL DEC
WIPE_CTL — WIPE /CINEMA
MEMORY DATE SELECTOR
THROUGH DATE SELECTOR
OUTPUT SIGNAL SELECTOR
MEMORY WRITE SELECTOR
PROCESSOR & MIXER

4.26 Y/C BLOCK DIAGRAM


01 MAIN (Y/C)
IC3001
FROM SYSCON (CPU)
V_FF
D. FF CTL
Head sw1
Head sw2
X. tal VCO/OSC
CR Det 2fsc
clock
KILLER DET
2fscYCD
fH LOCK CTL
HISOKAN /killer OUT
DATA CLK I2C Interface
SDA
SCL
FROM SYSCON (CPU)
VCA
CCD LPF
CCD CTL
LEVEL Det 1
LEVEL Det 2
Delay
CLPF
CLPF
DL
PB/REC Discr 1
REC APC
REC APC
PB APC
Color killer IO Det.
ACC Det
APC SW
1/2 2FL VCO
DOWN Conv.
1/2 Phase SW.
Pulse Gen.
4phase Gen.
C3039
L3005
P/R MAIN VCC
Q3008
BUF
BUF
V_PB_CU
Y+C
2M LPF
ACC
SEP
COMP
HPF
CTL TRAP fH HPF
TRAP
LPF
L_SECAM
L_SECAM
BPF
Main Conv 1
Main Conv 2
V_REC_CU
629KHz
629 TRAP
FM AGC
DET
P EQ
SQPB DL
SQPB
SQPB
G EQ
DLIM
DeMOD
Sub LPF
Main De. empn
DO Det
Edge Delay
REC AGC Det
PB ALC
APT CTL
N. L. Empn
N. L. De. Empn
D. E.
N. C.
FBC/ALC
Q3011
BUF
V_REC_FM
1MHPF
7MLPF
laglead LPF
FM MOD
fo/Dev Ad
S-DET
main Empn Carrier Ufiget W. C/G. C
TO SYSCON (CPU)
S_DET_H
Y. LPF
Clamp
Clamp
LPF
YNR
DO/R
DO
Video AGC
ATT (-10dB)
ATT (-10dB)
ATT (-10dB)
NC
REG_5V
R3236
Q3005
FROM SYSCON (CPU)
SVHS_H
C3004
Q3002
R3001
C3003
R3002
C3005
R3005
R3033
C3044
F_ADJ
FROM IRIS & AF/ZOOM (IC4301_PIN6)
C3008
C3009
C3010
C3011
C3012
C3014
Q3012
V_PB_5V
Q3006
BUF
V_PULSE
(FROM SYSCON (CPU))
6dB AMP
6dB AMP
C. SQUELCH
CLEAR SYNC
WHITE LIMITER
SQUELCH
C. K
N → P
B. D
B. E
C. K
MIX LEVEL ADJ
Feed Back Clamp
Video ALC
Sync. Sep.
CLK DRIVER
C_CCD
Y_CCD
MODE CTL
C3021
C3023
C3022
C3024
NC
NC
NC


(Y/C)
(PRE/REC)
Q3006
R3139
REG_5V
Q3101
R3101
V_PB_L
V_PB5V
FROM SYSCON (CPU)
V_PB5V
IC3101
IC3102
IC3103
BUF
D3101
VO_FR
DATE_FR
V_EE_L
CAM_C
FROM DSP
D3103
VO_DATE
DATE
CAM_Y
Q3106
CN16
LCD_Y
LCD_C
TO MONITOR
CN11
TO E_VF (COLOR) (ONLY USE_SXM915)
IND
IND_FR
CN12
VF_Y
TO E_VF (B/W) (ONLY USE GR-SXM515)
CN25
V_OUT_J
TO JIG_CONN
R3127
R3128
R3125
R3126
Q3102
MIX
Q3103~Q3105
IC3251
6dB
75Ω
V_OUT
SY_OUT
SC_OUT
(JACK)
J504
A/V OUT
S_OUT
J505
L3202
C3221
3.4MHz LPF
Q3202
Q3213
VHS
SVHS
REC
PB
Q3201
SVHS_H
D3201
V_PB_L
Q3206
SWH_H
Q3210
R3238
FL3201
5.5MHz LPF
Q3204
Q3203
AMP
Q3205
Q3207
R3204
R3213
IC3201
REC/THRU/PB
NL PROCESS
EP
SP
Q3209
C3220
R3242
Q3212
ET_REC_H
C3218
EQ
C3206,C3207
R3221,R3223
C3208,C3209
R3222,R3224,R3225
R3226
Q3211
SP_L
C3214
C3217
C3216
C3210,C3211
R3227,R3230,R3232
C3212,C3213
R3228,R3229,R3231
Q3208
D3202
REG_5V
V_PB_L
IC3501
NC
SVHS_H
AGC
AGC DET
R3526~R3528
L3502,C3526,C3527
HPF
VHS
SVHS
Q3507
Q3508
R3525,R3528
C3527,R3527
SW
EP/SP AMP
CH1/3 PB AMP
CH2/4 PB AMP
Y/C MIX
V/I AMP
C3504
V_PB_CU
V_REC_CU
CH3 CURRENT AMP
CH1 CURRENT AMP
CH4 CURRENT AMP
CH2 CURRENT AMP
CT SW3
CT SW1
CT SW4
CT SW2
Q3501
Q3502
Q3503
Q3504
CH3_S
CH3_F
CH1_S
CH1_F
CH4_S
CH4_F
CH2_S
CH2_F
CN5
R/I
VIDEO HEAD
CH3
CH1
CH4
CH2
FROM SYSCON (CPU)
V_REC_L
SP_L
V_OVL
V_REC_MUT
REC/PB
SP/EP
HEAD SW
MUTE

4.27 MONITOR BLOCK DIAGRAM



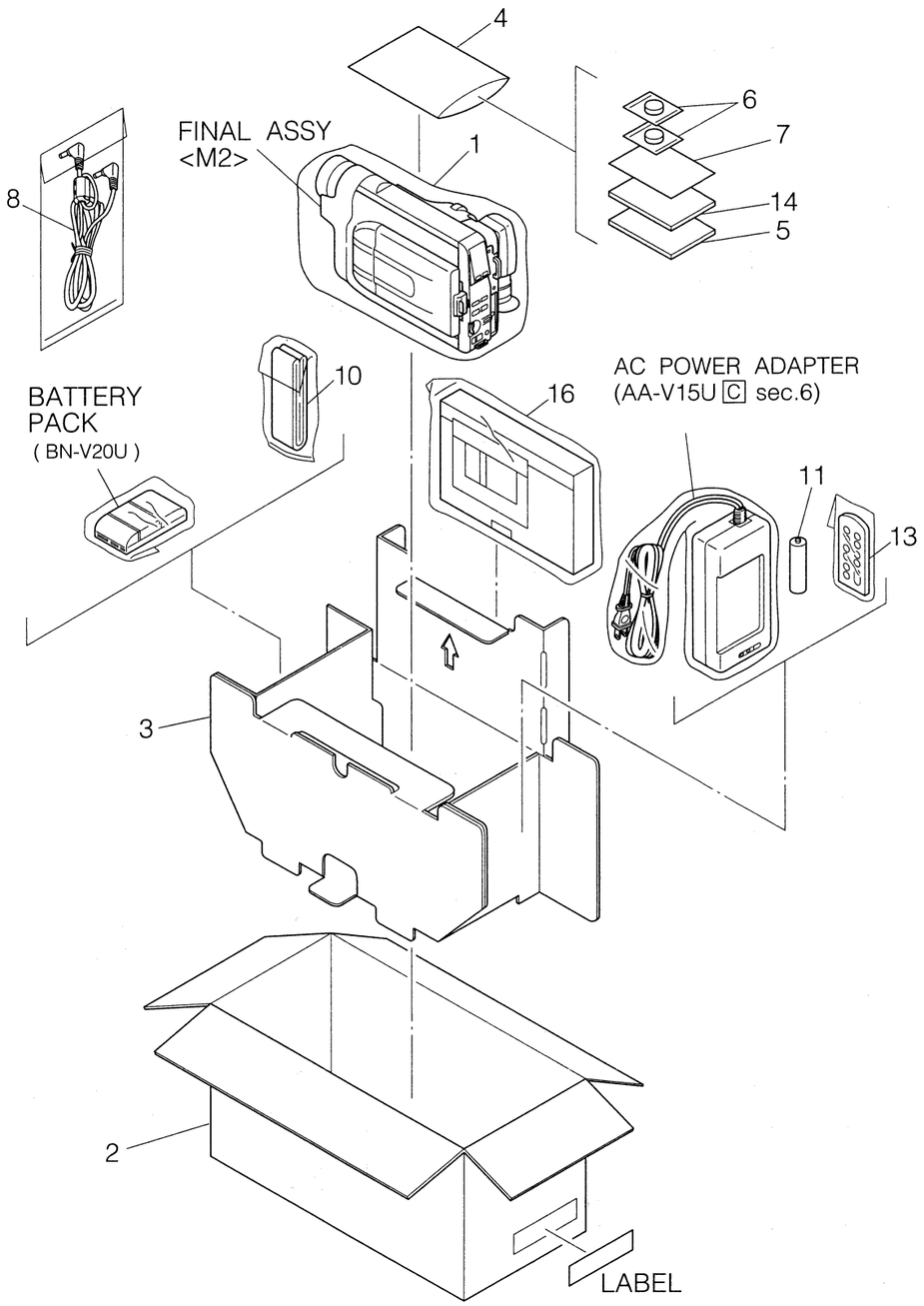
SECTION 5
PARTS LIST

SAFETY PRECAUTION

Parts identified by the ⚠ symbol are critical for safety. Replace only with specified part numbers.

5.1 PACKING ASSEMBLY <M1>

The instruction manual to be provided with this product will differ according to the destination.



#	⚠	REF No.	PART No.	PART NAME, DESCRIPTION

****

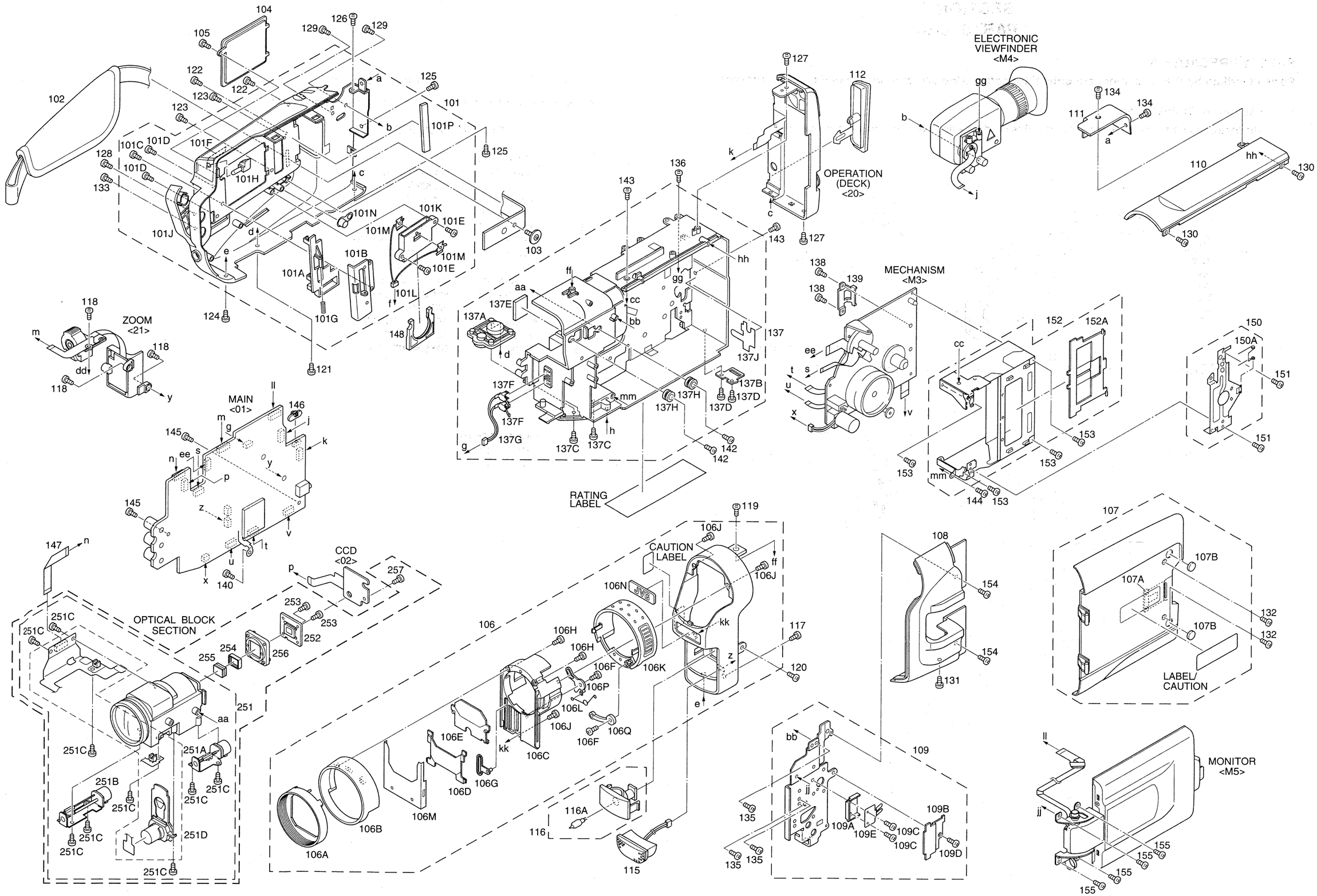
PACKING ASSEMBLY <M1>

	1	LY30023-002A	POLY BAG
	2	LY30905-010B	PACKING CASE,SXM515U
		LY30905-012A	PACKING CASE,SXM915U
	3	LY30906-001B	CUSHION
	4	QPA02003006	POLY BAG
⚠	5	LYT0254-001A	INST.BOOK(EN)
⚠	6	PECA0903	LI BATTERY,SXM515U
⚠		PECA0903	LI BATTERY,X2 SXM915U
	7	BT-51006-1	REGIST.CARD
	8	LYH30039-001A	CABLE ASSY,DC PLUG CORD
	10	LY20186-001A	SHOULDER STRAP
	11	–	BATTERY
	13	YQ20932A	REMOTE CONTROLLER
⚠	14	LYT0254-002A	INST.BOOK(FR)
	16	YQ31963B-3	CASS.ADAPTER ASSY

• INSTRUCTIONS

EN ..... ENGLISH
FR ..... FRENCH

5.2 FINAL ASSEMBLY <M2>



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